Dalradian Gold Limited

Curraghinalt Project
County Tyrone
Northern
Ireland

Transboundary Rebuttal Report
RESPONSE STATMENT

November 2025
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CONTENTS

ANNEXES

1. EXECUTIVE SUMMARY AND BACKGROUND

1.1. Introduction

1.1.1. This Response Statement ("RS") has been prepared by [redacted] (MCIEEM) of Bennu Environmental Ltd (formerly of [redacted] Limited) on behalf of the Applicant (Dalradian Gold Limited – "DGL") pursuant to the transboundary consultation undertaken in respect of Planning Applications LA10/2017/1249/F, LA10/2019/1386/F and LA11/2019/1000/F, and Consent applications TrC 080/20_1 (PAC Ref: 2021/WHR01) and TrC 081/20_1 (PAC Ref: 2021/WHR02). In preparing this Response Statement, regard has been had to the expert opinion of other consultants instructed by the Applicant, including, Dr Michael Stewart of Kaya Consulting, Mr Steve Coates of RSK, Dr Martin O'Farrell of Aztec Management Consultants, Dr Peter Cosgrove of Alba Ecology, Mr Steve Judge of Green and Blue Ecology, Mr Mervyn Keegan of AONA, Dr Peter Glanville of SLR and Mr Christian Dube of ASDR.

1.1.2. This RS directly addresses points raised by other parties within submissions made as part of the transboundary consultation. Specific regard has been had to matter raised by:

1) Donegal County Council (DCC);
2) An Taisce (the National Trust for Ireland);
3) The Department of Housing, Local Government and Heritage (NPWS);
4) Environmental Protection Agency (EPA);
5) Loughs Agency; and
6) Third parties.

1.1.3. Third part comments are addressed, with reference to the main text of this RS and supporting appendices, within Appendix 1.

1.2. Summary points

1.2.1. As a headline point, is important to note that there are numerous transboundary consultation responses which refer to a lack of Habitats Regulations Assessment (HRA) and also several responses which site deficiencies in the Applicant's own sHRA (for example An Taisce at its page 15 and Dr [redacted] TBA1537 at page 3 and 8 to 10). This is accepted by the Applicant.

1.2.2. The Applicant's sHRA package of information (2017, 2019 and 2020) is now outdated, given changes in the baseline (recorded presence of salmonids in some burns), changes to the formal Conservation Objectives[1] and in instances, in the light of more recent guidance published subsequent to production of those documents (air quality matters).

1.2.3. Included at Appendix 2 of this RS is an Update sHRA (November 2025). The new (2025) sHRA consolidates the assessment and addresses

[1] Guidance included at Appendix 6 of this statement regarding the updating of Conservation Objectives, produced by DTA.

concerns raised regarding the adequacy of the sHRA. Where additional information is relied upon or discussed, this is stated. Whilst mindful of the need to keep the assessment coherent and robust, care has been taken not to duplicate relevant information included within earlier versions, with summaries and appropriate cross referencing used to assist the reader.

1.2.4. A summary of the broad issues raised by parties within representations made as part of the transboundary consultation is provided in the table below in order to distil the number of points made and assist the reader in understanding the key points addressed within this RS and supporting appendices. Note that many of the third part comments mirror those of other consultees thus not all are cited in the table below. However where pertinent new or different points are made these are referenced.

AT = An Taisce
LA = Loughs Agency
DCC = Donegal County Council
NPWS = The Department of Housing, Local Government and Heritage
EPA = Environmental Protection Agency
Third Parties are referenced individually
P = Page number

Key Issue	Consultee and key Refs	Applicant Response: Key Refs
Transboundary impacts not considered / Downstream impacts on waterbodies not considered	AT: P4-7, P13, P27 LA: P47-49, 86, 99 FoE: P3 EPA: 39 EJNI:	Disputed. See section 3 of this RS Also: sHRA at Appendix 2
Applicants SHRA deficient	AT: P12-13, 15 LA: P48-49, 54, 72, 83, 84, 85, 86, 88, 93,94, 97, 98 DCC: P4 TBA0536: P1,2 (Black Bog) TBA1247:P2 (Black Bog) TBA1537: PP3 TBA1548: P7	Agreed. See sHRA at Appendix 2
Inadequate evidence base to inform judgements on Integrity	LA: P48-49, 88, 89, 91	Linked with comments relating to survey data and assessment. Position disputed. See sHRA at Appendix 2
No HRA undertaken	EJNI: P15 FOE: P2 TBA0143: P1 TBA0775: P1 TBA0987; P1 TBA1465; P1 TBA0630: P1 TBA1487: P1 TBA1548 -3-5	See section 8 of this RS (paras 8.8 – 8.11)
Hydrological connectivity between Mine site and	AT: P12-13, LA: P54, 98, 99 TBA0545: P1 TBA1177: P1	See in particular paras 8.5 to 87 of this RO See sHRA at Appendix 2

downstream ROI designated sites	TBA1494: P1	
WFD matters e.g. No WFD Assessment undertaken	AT: P8, P10, P27 DCC: P39	All relevant information available to undertake such an assessment and reach robust conclusions. See section 2 and also f this RS and 5.55 – 5.74 and sHRA at Appendix 2
The burns are Headwaters	LA: P50, P57-58	See Section 2 of this RS Also: sHRA at Appendix 2
Mine discharges will pollute downstream waterbodies including designated sites	LA: P77, 98, EJNI: P11 Cllr Joy Baird: P1,2 TBA0506: P1,2 TBA0545: P3 TBA1019: P1 TBA1494: P1 TBA1539: P9,10 TBA1557: P6-8 TBA-195 & TBA0341	This is disputed. Proposals are fully protective of the aquatic environment. Points relating to water quality are discussed throughout this RS. The sHRA at Appendix 2 consolidates the Applicants position.
Ultra clean RO Water will pollute watercourses	LA: P92	See para 8.101 of this RS and sHRA at Appendix 2.
Pollution risk posed by the DSF	TBA0506: P2 TBA0545: P3 TBA0741: P1 TBA1206: P2 TBA1564:P3	See in particular paras 5.24 to 5.41 of this RS.
Use of drinking water standards	AT: P8	See paras 5.43-5.47 of this RS See also sHRA at Appendix 2.
Previous exceedances of limit values	AT: P8	See paras 5.48-5.52 of this RS
Efficacy of the Betterment Plan and disputed data to back up effectiveness	AT: P10-11, 13-14 LA: P64-65, 95 TBA1537: P3	See in particular paras 5.76 and 8.102 to 8.106 of this RS. Also see sHRA (inc Annex 17)
Inappropriate limits inc for Phosphorus	AT: P11 LA: P50	See in particular section 2 of this RS. Also see sHRA at Appendix 2.
Need for urgent review of extant discharge consent	AT: P12	See paras 5.80 to 5.82 of this RS.
Heavy metal contamination (e.g. inc effects Salmon, Otter and birds)	AT: P12-13 TBA0143: P1 TBA0360: P1 TBA0412: P1 TBA0506: P1 TBA0741: P1 TBA1019: P1 TBA1206: P2 TBA1592: P4 TBA0594: P1	Proposals are fully protective of the aquatic environment. Points relating to water quality are discussed throughout this RS and the sHRA at Appendix 2 consolidates the Applicants position.
Air Pollution risks to designated sites and habitats across jurisdictions	TBA0596: P2 TBA1495 (FoE): P3 TBA1533: P2 TBA1592: P5	See Section 5 of the sHRA at Appendix 2.
Applicant has downplayed the	NPWS: P37	See in particular paras 8.12 to 8.26 of this RS. Also see sHRA at Appendix 2.

ecological value of the burns	LA: P52, P57, P59, 60, 61, 63, 68, 73, 84, 93,94, 96, 98	
Functional Linkage between burns and SACs demonstrated	LA: P 47-48, 79-82, 99	See in particular paras 8.27 to 8.34 of this RS. Also see sHRA at Appendix 2.
Atlantic Salmon habitat not appropriately assessed / recognised	NPWS: P37 LA: P48-49, 55, 57, 59, 62, 68, 69, 92, 93, 97, 98, 101-103,	See section 5 of the sHRA at Appendix 2. See in particular paras 8.35 to 8.37 of this RS
Analysis of survey results	LA: P48, 52, 54, 55, 68, 96, 97	Point linked with habitat / burn value analysis. Addressed substantively in section 8 of this RS. See section 5 of the sHRA at Appendix 2
Changes to flows will destroy Salmonid habitat	NPWS: P37, 62, 64, 65, 67, 68, 70-73	See in particular paras 8.44 to 8.74 of this RS. See section 5 of the sHRA at Appendix 1
Losses of salmon / salmon habitat and impacts on food availability	NPWS: P37 LA: P54, 62, 64, 67, 68, 69, 92,93, 95	See in particular paras 8.44 to 8.100 of this RS. See also section 5 of sHRA at Appendix 2.
Risks to blanket bog	LA: P64-65 TBA1533: P3	See in particular paras 8.107 to 8.109 of this RS
Impacts on European Eel	LA: 104	See in particular paras 8.113 to 8.116 of this RS
Unacceptable risk to salmon and FWPM	TBA0322: P1 TBA1429: P1 TBA1539: P9 TBA1564: P4 TBA1592: P5	Proposals are fully protective of the aquatic environment. Points relating to water quality are discussed throughout this RS and the sHRA at Appendix 2 consolidates the Applicants position.
Climate stress Inc No cumulative assessment	FOE: P2 TBA1583: P4	See Appendix 1. In particular changes in flows within the Pollanroe Burn will help protect against climate stress – positive cumulative impact.
Impacts on birds	AT: P13 TBA0322: P1 TBA0741: P1 EJNI: P12-13 TBA0751: P1 TBA1429: P1 TBA1494: P1 TBA1564: P4	No adverse effects will arise in relation to bird interest features of any designated site. Proposals deliver appropriate mitigate for birds using the application site. See sHRA at Appendix 2 re relevant SPAs / Ramsar sites. See also Appendix 2
Impacts on “Wildlife” “ecology”, “Protected species.	TBA0741: P1 TBA0751: P1 TBA0872: P1 TBA1597: P7	No additional or substantive points arise however, to consolidate the position the Applicant has undertaken update surveys for bats, Otter and Badgers, with associated reports appended to this RS.

Table 1: Summary of key issues and Applicant responses

1.2.5. It is notable that Loughs Agency in particular raise a significant number of points, in many instances expanding on evidence already before the Inquiry through its Statement of Cases and Rebuttal evidence, and in instances presenting new evidence. For all pertinent points, full and detailed

responses are necessarily provided either directly within this RS, or by way of reference to the sHRA at Appendix 2.

1.2.6. On review of the transboundary consultation comments (as a whole) it is considered that all concerns have been addressed, either by reference to information already before the Inquiry, and / or by reference to further information obtained and submitted as part of this RS. Matters concerning the need for a new sHRA have already been discussed above. In relation to that new information submitted (e.g. appended to the sHRA), this includes further survey and analysis in relation to fish and also salmonid habitat, update Otter surveys and update Biological Monitoring surveys, all undertaken in direct response to the transboundary comments (e.g. Loughs Agency) and additionally on the basis of good practice recognising the age of some survey data, ensuring sound conclusions can be reached in view of the best scientific information. All of that information corroborates the Applicant's position at SoC stage, that being that the proposals will not give rise to adverse effects on the Integrity of any designated site, nor will adverse effects arise in relation to Salmon / Trout, Otter, FWMP or any other qualifying interest feature.

1.2.7. An updated Air Quality Assessment has been undertaken in order to address the publication of new guidance (Revised Operational Protocol) which was therefore, not available / considered / followed previously. That assessment again concludes that no adverse effects on the relevant designated sites will arise.

1.2.8. Also discussed within the 2025 sHRA and summarised in this RS is the fact that the Applicant has proposed some changes to its proposed discharge criteria, lowering limits in relation to Phosphorus and TSS, and now including annual average EQS limits (in addition to Max) for the Curraghinalt burn, providing a parity with the proposals at Pollanroe Burn. The matter of changes to flows is also addressed in detail (principally within the 2025 sHRA) given the multitude of points raised by Loughs Agency (and others) on this subject. This hydraulic analysis and the proposed discharge consent limit values, directly respond to concerns relating to water quality and quantity as variously cited in the transboundary responses. It remains the position that the proposals are fully protective of fish in the burns and that no adverse effect on the Integrity of any designated site, through water quality impacts, arises.

1.2.9. The matter of "headwaters" and WFD considerations are specifically raised (see table above) within transboundary responses. Given the comments made, detailed responses are required and these matters are specifically discussed in the main body of this RS (and where relevant in the sHRA). To assist the reader, these topics are discussed first in a stand alone section up front in the RS, with responses to specific comments given in the main text relating to each respondent. By way of summary:

a) It is agreed that the burns may be termed headwaters in the context of them being upland tributaries of the river system, but;

b) No impacts on Priority Habitat occur (relevant to the Pollanroe Burn, where impacts occur on modified burn habitat);
c) No reliance need be placed on such terminology in relation to deriving a Phosphorus limit; and
d) The burns are not WFD waterbodies, but small, constituent parts of such waterbodies. No adverse effects arise on the relevant WFD waterbodies and the proposals will not prevent them attaining High Status.

1.2.10. Noting that some more general comments are made by third parties regarding impacts on “wildlife” and “ecology”, the Applicant also considered it necessary to submit as part of this RS, update monitoring reports in relation to bats and Badgers (see Appendices 3 and 4 of this RS. It is considered to be an important part of the suite of information submitted in addressing the concerns raised. This information confirms that no changes to the assessed impacts, or the required mitigation arise.

2. CLARRIFICATIONS REGARDING WATER QUALITY, HEADWATERS AND WFD

[NOTE. SECTION MOVED, REDUCED AND EDITED. FLOWS AND LIMITS PRIMARILY IN THE SHRA AT SECTION 5]

[PHOSPHORUS TEXT NEEDS UPDATING IN SHRA TO ALIGN WITH THE BELOW]

Water Quality – standards and limit values

2.1. The matter of the application of relevant standards (that guidance or legislation from which limit values are derived) and also those limit values to be applied in view of the relevant standards, is discussed in section 5 of the (2025) sHRA (see Annex 2). Notably, there is broad agreement between the Applicant and NIEA in relation to the relevant standards. There does however remain considerable disagreement between the parties in relation to the limit values to be applied, in large part due to the flawed methodology (Monte Carlo application within the burns) applied by NIEA.

2.2. The Applicant has revised its proposed limit values in certain instances, taking an even more conservative approach than was described in its SoC. The key changes are as follows:

Phosphorus — The Applicant's approach has been to set a limit value with reference to the river baseline and the generic values based on Table 6 of JNCC Rivers (see internal page 13 at Annex 23 of TR6) which are broadly aligned. NIEA's proposed approach (at SoC stage) of applying the WFD Good Ecological Status threshold (NIEA water discharges SoC Annex E internal pages 626 and 629) is noted, as its Rebuttal stage acknowledgement of Loughs Agency's position that 0.010 mg/l is applicable given that the burns are "headwaters", not "rivers".

JNCC Rivers confirms that applying the WFD Good Ecological Status threshold is appropriate, but it also states at page 12:

> *"If better local characterisation of natural/background concentrations is available, (e.g. where observed concentrations in the river are much lower than the generic target implied by the typology), changes to these generic values can be made to give a more accurate description of near-natural nutrient status."*

JNCC Guidance therefore specifically allows for location specific targets to be set within Conservation Objectives, based on background (baseline) data. The Conservation Objectives also explicitly state that it is not appropriate to apply a single target for the SAC due to variations in the baseline water quality. It is stated (see Atlantic Salmon feature table at pdf page 47 of JNCC Rivers at Annex 23 of TR6):

"Given that the SAC covers a large catchment and each of these elements varies throughout the site, it is not appropriate to set one SAC-wide target for SRP."

There are several references to "baseline" water quality within the transboundary comments, for example An Taisce at page 11 of its comments. Here An Taisce state:

"While the relevant authorities should work to address the exceedances in the baseline, allowances cannot, and should not, be made which would grant this development permission to discharge phosphorus in excess of set standards. Baseline pollution is liable to fluctuate throughout the year, but discharge pollution cannot be permitted to exceed set standards, and any such fluctuation of intake water pollution levels should be factored into a business model whereby the applicant seeks to exploit existing water sources."

The Applicant has agreed that Phosphorus will be a consent parameter and it is certainly agreed that the relevant authorities should work to address the exceedances in the baseline. It is however maintained that the baseline is a relevant consideration in setting the limits, just as JNCC and the Conservation Objectives refer to baseline. To further assist in relation to baseline water chemistry and also "fluctuations" as referred to by An Taisce updated baseline data is presented at Annex 14 of the 2025 sHRA.

The Applicant has confirmed new proposed limit values based on EQS in the table included at Annex 15 of the 2025 sHRA. A limit value of 0.016 mg/l is proposed for both the Pollanroe and Curraghinalt burns. This broadly accords with NIEA's proposed limits of 0.015 mg/l for the Curraghinalt Burn and 0.017 mg/l for the Pollanroe Burn, but is in fact more protective in relation to the Pollanroe Burn where evidence exists for Salmon presence (lower reaches only). The slightly higher limit proposed by the Applicant in relation to the Curraghinalt Burn is considered to be appropriately protective, given this watercourse is not identified through evidence as being of any significant value to Salmon (no firm evidence at all), and noting that the Applicant's proposed limit is only just above that proposed by NIEA. In both instances, the discharge proposals will be 'treating / diluting' the baseline.

The efficiency of the RO plant is described at Annex 19 of the 2025 sHRA. The RO plant delivers Total Dissolved Phosphorus at 0.001. Thus, actual discharge levels will be well below the proposed limit value. It would therefore be possible to impose any of the limit values put forward by any of the parties, however any such value must be properly justified. Simply promoting, or indeed accepting, the lowest value available is not appropriate for a consenting regime.

Detection limits remain a consenting (and enforcement) issue insofar as concerns SRP. For effective monitoring and control, there must be confidence in test results. To address the issue, the Applicant proposes that the limit relates to Total Dissolved Phosphorus which has a far lower detection limit (understood to be 0.0007mg/l). Total Dissolved Phosphorus contains (all) SRP and can be viewed as a 'catch all', representing a conservative approach and one which better fits the consenting and monitoring / enforcement regime, (different to target setting for designated sites where SRP is the identified issue which needs to be monitored). In monitoring for Total Dissolved Phosphorus the Applicant would be able to demonstrate the efficacy and benefits of its water treatment process, providing clear and precise data as part of the monitoring and reporting process.

TSS — The Applicant proposes a change for its position at SoC stage, to annual average concentrations of 10mg/L which is consistent with NIEAs position, and noting that the Conservation Objectives refer to this value as being relevant for Salmon 'spawning and nursery grounds'. With reference to that information presented at Annex 19 to the 2025 sHRA, during operation the RO plant will deliver discharges which are well below this value.

EQS — In respect of the Curraghinalt burn, the Applicant now proposes to include relevant annual average EQS limits in addition to the previously proposed Max EQS limits for metals. This approach is consistent with that proposed in respect of the Pollanroe Burn.

Clarifications regarding RO operational efficiency

2.3. Further clarification information is provided below in relation to the proposed discharges.

2.4. First, any discharge to the Curraghinalt burn will be intermittent (a contingency for operations and for construction) and at a lower rate. As stated at page 22 of Annex 1 of the Applicants water discharges SoC:

> *"It is noted that although two discharge consents are requested, discharges from the mine to the Pollanroe Burn is the main discharge proposed, with any discharges to the Curraghinalt Burn during operations a contingency for underground mine water. Both discharges are not predicted to occur at the same time."*

2.5. The reader is directed to the note included at Annex 19 of the 2025 sHRA produced by ASDR (designers of the RO system and the Appellant's appointed experts in this matter). In addition to consolidating and confirming details in relation to the design and operation of the proposed system, Tables 1 and 2 in the note confirm the efficiency of the proposed system, comparing the Proposed

Discharge Consent Values with the expected RO system performance for the Pollanroe and Curraghinalt burns.

2.6. Loughs Agency are wrong in simply falling in behind NIEA regarding concerns on the proposed discharge limits (see paragraph 5.1 of LA transboundary response).

2.7. It remains the position that the proposed discharge consent limit values are fully protective of the water environment, importantly, including in consideration of impacts on FWMP and Atlantic Salmon / salmonids. For those key parameters where JNCC guidance expressly sets stringent water quality standards (see section 5 of the 2025 sHRA), with the exception of nitrate, the water treatment process delivers significantly better results for the SAC and associated interest features, than would be required by the Conservation Objectives. Regarding nitrate, whilst the RO plant will not achieve 0.0125mg/l in the discharge itself, the compliance point is the respective confluence with the Owenkillew River SAC (where FWPM are present downstream of discharges). The Applicant has demonstrated that through measures to be secured through the Betterment Plan, nitrate loading in the Owenkillew River SAC (and those downstream designated sites) will be reduced. The net position is one of improvement for the designated sites and helps the trajectory towards favourable condition.

2.8. The methodology adopted by NIEA in calculating an end of pipe limit (Monte Carlo) is flawed and this is plainly obvious on the basis of resultant 0mg/l limits. NIEA have applied a model which relies upon mixing / dilution, to a burn which is not appropriate given the flows. The relevant guidance expressly advises against using the model for such watercourses. To illustrate in a simple way why 0mg/l limits should not be arrived at, taking Nitrate as an example; if discharges were at the JNCC favourable condition value of 0.125mg/l, that would clearly be acceptable since any mine water (absent considerations of background concentrations, mixing or dilution) would be fully in line with the guidance. If background levels were below the favourable condition value, it could not cause a breach and, as in the current case, where background is over the favourable condition value it would be diluting the background concentrations.

Summary regarding “Headwaters”

2.9. With reference to Table 1 above, the term Headwaters is referred to variously within the transboundary responses.

2.10. The issue of whether the relevant burns (most notably the Pollanroe burn) are classified as headwaters is relevant to three broad points, as follows:

1) Implications for Priority habitats;
2) The relevance, for assessment purposes, in relation to limit values for Phosphorus and flows;
3) The relevance to WFD assessment.

2.11. Relevant key guidance / statutory instruments are the following:

a) The UK Biodiversity Action Plan Priority Habitat Descriptions – Rivers (Updated December 2011);
b) The "2015 (EQS) regulations"; and

c) The "JNCC CSM Guidance for rivers".

2.12. Key points are discussed below together with conclusions regarding the application of the relevant guidance and legislation insofar as the Mine proposals are concerned. To avoid repetition, the reader is directed to section 5 of the 2015 sHRA in respect of analysis of the JNCC CSM Guidance for rivers insofar as matters concern flows.

2.13. Headline points, are as follows:

a) The Pollanroe Burn does not meet the criteria for classification as Priory Habitat and it remains the Applicant's case that no losses to Rivers Priority Habitat occurs as a result of the proposals (noting direct losses to the upper reaches of the Pollanroe Burn will occur);
b) For Phosphorus, it is accepted that in line with JNCC Rivers Table 6, the Pollanroe and Curraghinalt burns would be classed as headwaters for the purpose of deriving a generic SRP limit. However, elsewhere the JNCC guidance (and Owenkillew River Conservation Objectives) explicitly state that other, more location specific, information can (and indeed should, where available) be used to define conservation objectives / favourable condition targets. The Applicant's approach (see above and the Tables included at Annex 13 of the 2025 sHRA) has full regard to relevant baseline data and legislated EQS values, deriving appropriate limit values which broadly accord with NIEA's SoC position, which cited good ecological status under WFD as a relevant threshold.
c) Regarding flows, it is not appropriate to apply JNCC Rivers flow targets on undesignated burns. The identified functional linkage relates to the presence of salmonids (including, in instances, Atlantic Salmon). Changes in flows in the burns have a negligible (not significant) effect on flows in the main rivers. The correct approach regarding flows is to specifically assess the changes in flows with reference to the implications on the fish in the burns, and not to assess the changes against a designated site condition target. This assessment is presented at section 5 of the 2025 sHRA with reference to supporting information. The changes in flows are concluded to be beneficial in respect of fish in the Pollanroe burn. No adverse effects on salmonids are identified in relation to the Mine proposals.
d) It is a material consideration that the Mine project assists in stabilising the flow rates in the Pollanroe burn, reducing effects associated with low flows (drying out) and storm events;
e) Regarding WFD considerations, the burns are recognised as being a constituent part of WFD waterbodies. They are 'headwaters' of those waterbodies. However they are not "WFD waterbodies" in their own right and effects on the burns and main rivers will not cause a deterioration in the overall WFD Waterbody status.

UK BAP

2.14. UK BAP priority habitats cover a range of semi-natural habitat types identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (the "UK BAP"), published in 1994.

2.15. The list of priority habitats is shown in a table, with links to the definitions of these habitats. These descriptions are also found in the "UK Biodiversity Action Plan: Priority Habitat Descriptions", published (originally) in 2008 and updated in December 2011.

2.16. The "rivers" priority habitat description identifies criteria for identification of BAP priority rivers, including units of assessment and qualifying features. Notably, under the topic heading of units of assessment, it is stated (page 2):

> *"Headwaters, because of the small size of their catchments, are often not classified as water bodies under the WFD; these should be included separately when identifying BAP priority habitat"*

2.17. Notably, in relation to qualifying criteria, at criterion 2, it is stated (page 2):

> *"Headwaters. To qualify as a priority habitat for 'Rivers' under the criterion of 'headwaters' a stream must be: a watercourse within 2.5km of its furthest source as marked with a blue line on Ordnance Survey (OS) maps at a scale of 1:50,000. Note that each tributary of a river will have its own headwater, so there will be more than one (sometimes many more) per catchment. Headwaters which have been significantly altered from their natural state are however not included..."*

2.18. In addition, it is also stated in the guidance (page 4):

> *"Headwaters Based on submission to priority habitats review dated 2/11/05.*
>
> *The definition of 'headwater' as given by Furse (1995) is 'a watercourse within 2.5km of its furthest source as marked with a blue line on Ordnance Survey (OS) Landranger maps with a scale of 1:50,000.' In Britain, headwaters probably represent >70% of the total length of flowing waters. This implies a total length >146,000km.*
>
> *Physical and chemical characteristics of headwaters vary greatly according to their location, altitude, geology, and surrounding land-use. By definition, headwaters form the uppermost segments of rivers, and as such play an important role in the overall functioning of river ecosystems downstream. Although some headwaters, either deliberately or incidentally, are included within protected areas such as SACs and SSSIs/ASSIs most are not, and the total length of headwaters receiving some form of special protection is a very small percentage of all headwaters in the UK".*

2.19. The work previously carried out by the UK BAP is now focussed at a country-level (as opposed to) a UK-level, and the UK BAP has now been succeeded by the 'UK Post-2010 Biodiversity Framework' (July 2012), a revised UK Biodiversity Framework and the UK's National Biodiversity Strategy and Action Plan (2024). However, the UK list of priority habitats, remains an important reference source and has been used to help draw up the statutory lists of priority habitats in England, Scotland, Wales and Northern Ireland.

2.20. It should be noted that a separate list of priority habitats has been drawn up in England in response to the Natural Environment & Rural Communities Act 2006, section 41 duty. Reflecting that same duty, under the provisions in section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011 (WNEANI), the Department (DAERA) must publish a list of the species of flora and fauna and types of habitat which in its opinion are of principal importance for the purpose of conserving biodiversity.

2.21. The DAERA website confirms that:

> *"As part of the Northern Ireland Biodiversity Strategy, the Department maintains lists of Northern Ireland Priority Habitats and Northern Ireland Priority Species which require conservation action. These are now maintained as part of the WANE Act. The list of Northern Ireland Priority Species is currently under review."*

2.22. DAERA has also produced advice for planning officers on priority habitats which includes (at its Appendix 1) a list of priority habitats. The list refers to "rivers and streams" but only contains advice on surveying, mitigation and aspects of decision-making.It does not represent a Habitats Action Plan (HAP) .

2.23. DAERA has not prepared a habitats guide for "rivers" or "rivers and streams", nor has it adopted the tabular list of priority habitats with related habitat descriptions as per the identification of UK BAP priority habitats. Indeed it is noted from the NIEA consultation response (dated 30th August 2017) in relation to the mine application that, "no Northern Ireland Habitat Action Plan (HAP) has currently been written for Rivers, so the UK HAP for this habitat applies. This HAP defines this habitat as fulfilling one or more of the listed criteria" (which are then listed by it). It is therefore understood that the priory habitat "river" or "rivers and streams" (a UK BAP priority habitat) and is now a statutorily listed priority habitat under section 3(1) of WNEANI 2011. In the absence of any further guidance, it is material to have regard to the description as applied originally at a UK level and cited / quoted above.

2.24. In relation to the question of whether, in applying the relevant criteria, those impacts on the Pollanroe and Unnamed watercourse which arise as a result of the mine proposals, impact upon priority habitat, it is the Applicant's position that impacts on priority habitat do not arise. A position which is unchanged since the original survey and assessment work undertaken as part of the ES.

2.25. Included at Annex 4 of the 2025 sHRA are two Hydromorphology Assessments (2025) including one specifically relating to the Burns, produced by SLR (2025). The reader is directed to these reports for the detail, but by way of summary the assessment concludes that the Pollanroe Burn (at the proposed infrastructure site) is classified as Moderate to Poor hydromorphology indicating that it has

been significantly altered from a natural state and thus it would not qualify as a headwater (BAP) Priority Habitat.

The Water Framework Directive (Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) 2015

EQS Regulations[2]

2.26. It is necessary to consider these regulations because NIEA refers to them in the context of headwaters and additionally JNCC guidance refers to "headwaters" and also cites WFD criteria in the application of certain standards to be applied.

2.27. Part I of Schedule 1 of the 2015 regulations sets out the criteria for identifying the different types of river, lake or transitional water. Table 4 deals with rivers and sets out the criteria for determining the types of river to which associated river flow standards apply. Type A2 includes "A2 headwaters", determined according to specified rainwater, base flow index and catchment area.

2.28. Part II of Schedule 1 of the 2015 Regulations, at paragraph 6 makes provision for applying environmental standards to river flows, referring to Tables 6-9 which set out high, good, moderate and poor environmental standards for types, including "*A2 (headwaters*)". Each standard is applied by reference to *"Permitted abstraction per day as a percentage of the natural mean daily flow (Q)"*.

The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017 ("the 2017 Regulations")

2.29. Regulation 3 can be summarised as the general duty of exercising functions in a manner that secures compliance with the WFD, the EQS and the Groundwater Directive, to include preventing deterioration and supporting achievement of environmental objectives. Under Regulation 5 DAERA must maintain, in accordance with Annex II to the WFD, an analysis of the characteristics of each river basin district. Annex II to the WFD requires the identification of the location and boundaries of bodies of surface water, as well as an initial characterisation of all such bodies in accordance with a methodology that includes categorisation as a river, lake, transitional waters or coastal waters, the "characterisation exercise".

2.30. Regulation 6 of the 2017 Regulations requires the classification of the status of water bodies in accordance with detailed provisions Annex V to the WFD. This may be called the "classification exercise".

2.31. Specifically regarding Regulation 20, this concerns "Content of programmes of measures", with paragraph 2 confirming those "basic measures" which must be included and paragraph 4 stating that *"each programme of measures must include any other supplementary measures designed and implemented with the aim of achieving the environmental objectives set under regulation 12"*.

2.32. The 2017 Regulations require DAERA to classify bodies of surface water (identified for the purposes of Regulation 6 of the 2017 Regulations), according

[2] Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015 ("the 2015 Regulations")

to their ecological status and chemical status, based upon a comparison with relevant environmental standards (see Schedule 2, in particular Parts 1, 2 and 5).

2.33. Both the characterisation and classification exercises are carried out by reference to 'bodies of surface water'. The term a "body of surface water" is used by reference to the 2017 Regulations, which defines the term as follows (Schedule 1, Directive Definitions, 1(2)):

> *"body of surface water' means a discrete and significant element of surface water such as a lake, a reservoir, a stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water."*

2.34. Following from the above, in so far as the 2015 Regulations employ the term "headwater", this must relate to a body of surface water that has been included in a 'characterisation of the river basin district' with reference to the 2017 Regulations. This would include a characterisation of surface water body types falling within categories including rivers.

2.35. Given the above, if a headwater has not been identified as part of a body of surface water pursuant to the characterisation or classification processes, it should not be regarded as a headwater for the purposes of applying the standards in the 2015 Regulations.

2.36. This is reflected in the (UK) guidance on priority habitats (see above) where headwaters are often not treated as bodies of surface waters because of the small size of their catchments.

2.37. Following from the above, the burns themselves are not individually, bodies of surface water for the purposes of applying the WFD. The relevant WFD waterbodies are the Owenkillew River (Drumlea) and Owenreagh (East) River (Drumlea) of which the burns are constituent parts. Any assessment of the implications of the Mine project in a WFD context is undertaken against the aforementioned WFD waterbodies. With reference in particular to the proposed discharge consent values at Annex 13 of the 2025 sHRA and the report concerning RO design and efficiency (at Annex 17 of the 2025 sHRA), the proposals would not cause deterioration to the WFD waterbodies, nor would they prevent them from attaining High status.

3. Summary position regarding Transboundary issues

3.1. Transboundary risks relevant to the proposals, are considered to be limited to water quality and aquatic ecology matters associated with downstream Natura 2000 sites This includes the River Finn SAC as specifically referenced by DCC. An update to the sHRA has been prepared on behalf of the Applicant and is included at Appendix 2. This has been prepared in order to reflect new information which has become available since the preparation of previous iterations of the Applicant's sHRA (most notably, the 2024 revision to the Conservation Objectives and evidence of salmonid presence in burns). Notwithstanding the preparation of the new sHRA, the Update Shadow Habitats Regulations Assessment (2020) also specifically considered implications for relevant downstream designated sites (potential transboundary effects). The reader is directed to that document which demonstrates that the potential for Transboundary effects to arise were considered as part of the assessment process undertaken by the Applicant. Reference is draw in particular to sections 3 and 4 of that sHRA.

3.2. It is stated at paragraph 3.9 of the sHRA (2020) that:

> *"In view of the project proposals themselves, the proximity of the designated sites and the hydrological linkages which exist, in adopting a precautionary approach to assessment, it has been concluded that the following sites should be considered in detail within this sHRA:*
>
> *a) Owenkillew River SAC;*
> *b) River Foyle and Tributaries SAC;*
> *c) Lough Foyle SPA (UK and ROI);*
> *d) Lough Foyle Ramsar site; and*
> *e) River Finn SAC."*

3.3. Specifically, regarding the River Finn SAC, it is stated at paragraph 3.11 of the sHRA (2020):

> *"Regarding the River Finn SAC, this designated site is also part of the River Foyle system, with the River Finn discharging into the River Foyle at its confluence with the River Mourne. For assessment purposes, the River Finn itself can be considered 'upstream' of the Application Site and no adverse effect on this stretch could arise. However, as can be seen from Plan ECO1 the River Finn SAC extends to cover the western bank / channel of the River Foyle, being contiguous at this point with the River Foyle and Tributaries SAC. It is therefore considered appropriate to 'screen in' the River Finn SAC."*

3.4. Thus, the connectivity and potential pathway for effects is recognised and has been described by the Applicant. Relevant information pursuant to the designation of each site (listed above), is described in detail at section 4 of the sHRA (2020). Notably Atlantic Salmon is a cited qualifying interest feature of the Owenkillew River SAC along with the River Finn SAC, River Foyle and Tributaries SAC and the Lough Foyle Ramsar site. This species is therefore a sensitive receptor (for the purpose of assessment) and is common to each of these designated sites.

3.5. It is considered necessary to assess the proposals in the context of potential Transboundary issues (as has been undertaken by the Applicant), however it is also the case that no new or additional issues arise as a result of assessing Transboundary risks associated with the proposals.

3.6. It should be noted that in producing its SoCs and Rebuttal evidence, the Applicant's approach in relation to proposed discharges was revised on the basis of additional evidence (notably in relation to salmonid presence in minor watercourses) obtained since the production of the sHRA in 2020. Whilst this change is important, the conclusions of the sHRA (2020) regarding surface and ground water quality and quantity, included at paragraphs 5.118, 5.119, 5.129 5.130, 5.134 and 5.135 remain valid. For clarity, the overarching conclusions are that no adverse effect on the integrity of the Owenkillew River SAC would arise and further that no adverse effect would arise on any other relevant (i.e. downstream) designated site. By way of example, regarding matters concerning surface water quality, it is stated at paragraph 5.119 of the sHRA (2020):

> *"In the light of the above conclusion; given the heightened sensitivities to water quality associated with the qualifying interest features of the Owenkillew River SAC, the SACs proximity to the project site and also, the dilution which would occur within receiving waters, it can be concluded that no adverse effect on the integrity of any other European / Ramsar site would arise."*

3.7. The sHRA proceeded on the basis that, subject to the securing of appropriate mitigation (including Discharge Consents with agreed limit values) which is protective of the Owenkillew River SAC (including Atlantic Salmon) it follows that the interest features of other downstream designated sites would also be safeguarded, such that no adverse effect on Integrity arises on those sites. That premise remains relevant and applicable. As stated above, the baseline position reported by the Applicant has changed since the production of the sHRA (2020) in that the presence of salmonids (including Atlantic Salmon) is now a relevant consideration in terms of burns which discharge into the Owenkillew and Owenreagh rivers. However, in full recognition of that change in baseline, the mitigation package has also evolved accordingly, with reference to the proposed discharge consent values and the Betterment Plan proposals for example.

3.8. In protecting the interest features of the Owenkillew River SAC, appropriate protection is also afforded to those other downstream designated sites.

3.9. Specific points raised by consultees are addressed in detail within the following sections. Notably, matters concerning implications for Atlantic Salmon, an interest feature which is common to those relevant SACs highlighted in the sHRA (2020) and by consultees (in particular Loughs Agency) are specifically addressed.

4. MATTERS RAISED BY DONEGAL COUNTY COUNCIL

4.1. In its consultation response letter of 9th May 2025, Donegal County Council (DCC) state (page 2, 2nd para):

> *"In its assessment of the potential environmental transboundary risks posed by the proposed mining operation and associated 2 no. 33kV overhead power lines the planning authority considers that the primary Transboundary risks are the hydrological links between the mining operational site and the River Finn SAC and the potential risks to water quality and aquatic ecology including water dependent qualifying interests within the Natura 2000 sites such as the Atlantic Salmon, and in general the biodiversity conservation of the Natura 2000 site."*
>
> [emphasis added]

4.2. Transboundary risks associated with the mining proposals, which fall to be considered by this Inquiry, are largely (but not only) focussed upon water quality and aquatic ecology matters associated with downstream Natura 2000 sites such as the River Finn SAC. This matter is discussed in detail further below within this RS.

4.3. Insofar as matters concern ecology and the water environment (the principal topic/s on which representations are made), DCC refers directly to the position of Loughs Agency and National Parks and Wildlife, requesting that a precautionary approach to assessment is undertaken. It is stated:

> *"The planning authority concurs with the Loughs Agency's submission in relation to the erection of the 33kV overhead power lines given the no. of proposed fresh watercourse crossings and the absence of site specific Risk Assessment Method Statements, and Construction Environmental Plans to mitigate any deterioration in water quality in the Foyle Catchment as a result of associated works.*
>
> *Furthermore, in relation to the mining facility the subject of planning application reference no. LA10/2017/1249/F and based on the electrofishing surveys conducted by Loughs Agency in 2021, which demonstrated the presence of Atlantic Salmon in the Curraghinalt & Pollanroe Burns as well as the Owenreagh River, the planning authority questions the conclusions of the sHRA that the Pollanroe Burn and Owenreagh River are of lesser or negligible importance as a result of their distance from the Owenkillew River SAC. National Parks and Wildlife has also raised the potential risks on "fish biomass available" within the Foyle Catchment and specifically references the Atlantic salmon as a qualifying interest of the Natura sites that could be impacted by the proposed development. In this regard the planning authority requests that the Commissioner relies on the precautionary approach in assessing potential environmental/ecological impacts of proposed developments where she considers that accurate, comprehensive and most up to date environmental information and data to make a proper and fully informed assessment of any development proposal is questionable."*

5. Matters raised by An Taisce (the National Trust for Ireland)

5.1. Before addressing specific points raised by An Taisce within its consultation response, the broad overarching assertion that trans-boundary effects were not considered in the Environmental Assessment is discussed, together with information which is relevant for context when considering this point.

5.2. First, reference is drawn to the Habitats Regulations site screening information as presented by the Applicant in the ES package of information. The 2019 FEI submission included (at C.10) an HRA document, which at section 4.1, includes a list of sites identified through the screening exercise. Specifically in relation to potential transboundary effects, it is stated at section 4.1:

> *"The potential for potential transboundary impact upon sites in the Republic of Ireland is also considered[1,2]. However it is noted that as the UK sites above are upstream of all potentially connected ROI sites, should it be established that no impact will arise upon the UK Natura 2000 sites, then a corollary of that statement is that not impact will arise upon the ROI Natura 2000 Sites."*

5.3. Footnotes "1" and "2" referenced in the quotation above confirm that "Lough Foyle SPA (ROI) Site Code: 004087 Donegal" and "River Finn SAC (ROI) Site code: 002301, Donegal", were sites which were considered relevant to the assessment.

5.4. As already discussed above, the Update Shadow Habitats Regulations Assessment (2020) also specifically considered implications for relevant downstream designated sites (i.e. transboundary effects) with the summary of site screening included at section 3 of that document. Furthermore, as stated at paragraph 3.4 of the 2020 sHRA, in its response of 24th April 2020 (pursuant to FEI of July 2019) NED only reference the Owenkillew River SAC and the River Foyle and Tributaries SAC.

5.5. Reference is also drawn to the ES Scoping Opinion (see ES 2017 Appendix A2) which does not raise the issue of potential transboundary effects.

5.6. To be clear, the impact of the mine on downstream watercourses was considered when defining the study area within the project Surface Water Impact Assessment (2nd Addendum to the ES, Appendix C4, i.e. SWIA). Based on the assessment it was concluded that the study area would extend to the point where the Owenkillew River was joined by the Owenreagh River. At this point, impacts on flows and water quality were considered negligible and further downstream assessment was not warranted. If the assessments in the SWIA had indicated an impact at this downstream point, the analysis would have been extended downstream.

5.7. A catchment map is provided at section 5 of the 2025 sHRA (Figure 1) which puts the scale of the mine site in the context of the wider catchments. Such an assessment was also provided in Figure 4 and Table 4-2 in the SWIA (see ES 2017 Appendix C4). By way of summary, the proposed infrastructure area in the Pollanroe Burn (including catchment of Clean Water Pond) is 0.9km^2 in area, with the existing infrastructure area in the Curraghinalt Burn 0.01km^2 in area. In comparison the Owenkillew River downstream of the Owenreagh is 222.5 km^2, with the Mourne River

at Strabane at 1,844km2 and Foyle at its mouth 2,925km^2 (or 3,200 times larger than the mine site areas).

Discussion on specific points

5.8. Section 3.3 concerns "Abstraction and Discharge". No substantive point is made however it is notable that the language used demonstrates a misunderstanding of the project proposals.

5.9. An Taisce describe a process which has little bearing on the reality of what will occur, over-simplifying the proposals to the extent that all of the mitigation measures are ignored. Broadly, An Taisce summarise the process as involving the abstraction of mine wastewater, the discharge into the Owenreagh and Owenkillew (ASSIs / SACs) of "*24 heavy metals due to the mine's processes and acid mine drainage*" and also comment that this discharge would continue in perpetuity.

5.10. That is an inaccurate representation of the proposals. It is important to recognise that, firstly, the abstracted mine wastewater comprises groundwater, and secondly, that with the exception of mineral oil, the parameters listed in the applications are naturally occurring, with a monitored baseline occurrence in the catchment. The parameters are all listed for regulation for the purpose of ensuring (and demonstrating) that they do not exceed established environmental thresholds. All of that abstracted groundwater will be subject to treatment with a Reverse Osmosis (RO) plant forming the backbone of the treatment chain. That treatment chain and RO plant will remain operational for as long as is required, with all discharges subject to agreed limits, enforced through regulation as part the Discharge Consenting process.

5.11. Section 4 concerns "Water" and specifically the status and interrelationship of relevant designated waterbodies. The first paragraph of this section overstates those habitat connectivity issues which rightly, should form part of the assessment into implications for the relevant designated sites. It is stated:

> *"The Sperrin Mountains are hydrologically and ecologically connected to rivers and ecosystems spanning the Northwest of the island of Ireland - including County Donegal directly and County Leitrim, among other counties in the Republic of Ireland (ROI), indirectly. In fact, the entire island is considered 'a single biogeographic unit with shared landscapes, water sources, flora and fauna', as detailed in the EJNI report Linking the Irish Environment."*

5.12. The relevant legal and planning tests are focussed upon an assessment of actual, identified pathways for adverse effects to arise on the designated sites (and associated qualifying interest features). There is no requirement to broaden the assessment to a biogeographical unit as inferred by An Taisce.

5.13. An Taisce then describe the hydrological connectivity which exists as far as Transboundary matters are concerned. It is stated:

> *"More particularly, the two rivers flowing from the proposed mine site follow a water course that runs into Irish waters and into the Atlantic Ocean. The Owenreagh River ASSI flows into the Owenkillew River*

SAC & ASSI (both receiving flow from the mine site), flowing then into the Mourne River to meet the River Finn SAC from Donegal at Lifford/Strabane to become the River Foyle (and tributaries) SAC, flowing finally into Lough Foyle SPA & Ramsar site and on to the Atlantic Ocean. The River Finn SAC receives water from this flow path as the waters as far inland as Castlefinn are tidal, and therefore subject to back flow."

5.14. The hydrological connectivity / flow path is not disputed. However, it is implied by An Taisce (though not expressly stated) that the River Finn SAC would (or at least could) be affected by the mine site discharges on account of the fact that the waters up to Castlefinn are tidal (subject to back flow). However, the response of An Taisce on this point actually highlights rather neatly the significant distance at which the River Finn is located from the proposed mine site, and importantly, the very significant body of water (comprising the series of main rivers) into which any mine discharges would effectively be lost due to dilution. It is incomprehensible that it would be possible to discern mine discharges from the background concentrations of discharge parameters. To be clear, effects on water quality at these distant sites would be nugatory (indiscernible against the baseline conditions). In this matter, the reader is referred to page 23 of Annex 1 to the Applicants Water discharges SoC. Here it is stated:

"Calculations undertaken for the Owenkillew River downstream of the Owenreagh confluence based on the results of the Monte Carlo calculations (i.e., using the Owenreagh River concentrations upstream of the confluence with and without the discharge into the Pollanroe Burn as inflows to the Owenkillew). Given the additional dilution in the Owenkillew (average flow of 5 m3/s compared to 2.49 m3/s in the Owenreagh) the model predicted no measurable change in water quality in the Owenkillew."

5.15. As already discussed up front in this RS, further revisions to the proposed limit values have been made which gives even greater certainty in relation to a lack of adverse effects on the burns and Owenkillew / Owenreagh rivers. The principle of "no measurable change" (and no adverse effect) equally applies in relation to the revised proposals. Additionally, the report at Annex 17 of the 2025 sHRA discusses the efficiency of the proposed RO plant, confirming that it will deliver water of a quality well below the proposed consent limits in most instances (additional mitigation is proposed in respect of nitrate). In conclusion, the mine project would have no bearing on water quality at these distant designated sites.

5.16. At the end of section 4 An Taisce seeks to justify its concerns by reference to a quote from TR6 of the Applicant's SoC. It is stated:

"Dalradian admits the impact of waste water discharge:

"It has been identified that significant adverse effects could arise through changes in water quality arising from discharges of waste water, and through changes in the hydrogeological and hydrological regime." (Dalradian Statement of Case, TR6 Ecology, 1.143)"

5.17. For clarity, the Applicant's evidence is simply highlighting that such risks exist in the absence of mitigation. TR6 goes on to describe mitigation measures which are considered necessary and which can be properly secured in order to ameliorate such risks, and indeed deliver an enhancement over the baseline conditions**.** Paragraphs 1.144 to 1.149 of TR6 describe in broad terms those measures which would be brought forward to address the potential 'significant adverse effects' cited by An Taisce with reference to para 1.143 of TR6.

5.18. Section 4.1 is titled "Water Framework Directive Transboundary Assessment" and this section raises several points in relation to water quality matters.

5.19. Before again describing the flow paths which exist between the mine site and the River Finn the headline point made by An Taisce is that:

> *"There appears to have been no consideration for transboundary water quality in the application documentation."*

5.20. Contrary to the assertion of An Taisce, regard has been had to implications on receiving waters, flow paths and the effects of dilution. For example, and as discussed above, Appendix C4 (SWIA) of the Addendum to the ES, specifically dealt with downstream (e.g. 'transboundary') water quality and concluded that beyond the point where the Owenkillew River was joined by the Owenreagh River, impacts on flows and water quality were considered negligible and further downstream assessment was not warranted. Impacts had been positively screened out.

5.21. An Taisce focus in on discharges of heavy metals and the threats posed to aquatic ecosystems, in particular "*harmful effects on the growth and development of fish, as well as the reproductive and respiratory systems of those fish*". Reference is also made to bioaccumulation of heavy metal toxins "*within species*".

5.22. These concerns are however unfounded in relation to the mine proposals. Discharges would be governed (enforced against) through the Discharge Consents. The Applicant has further updated its proposals in respect of the appropriate limit values which should be applied, with regard had to available guidance (see Annex 13 of the 2025 sHRA. These limit values are set at levels which are protective of the aquatic environment and the applicant's approach has been to ensure, with an appropriate level of certainty that the discharges are appropriately protective of the aquatic fauna (and flora) in the immediate receiving waters, in this case the burns. Downstream of the burns, the effect of dilution means that the already acceptable discharge (in ecological terms) is even less of a concern. Full confidence can be had in the conclusion that the mine water discharges, including metals will not have adverse effects on the relevant aquatic ecosystems, including those waters subject to the Transboundary topic.

5.23. Following from the above, contrary to the position of An Taisce that "*significant indirect effects could occur well downstream from the discharge point*", no such significant effects would occur in view of the proposals, and certainly none would occur within those waterbodies relevant to Transboundary matters.

5.24. Section 4.2 relates to water quality matters after closure. The concern cited by An Taisce can be distilled as follows. That in addition to the risks posed by heavy metals, the pollution risk posed by the Dry Stack facility (DSF) will remain in perpetuity. An Taisce place reliance upon the views expressed by Dr. Emmerman (discussed in detail further below). It is stated:

> *"Each of these is likely to adversely affect fish, invertebrates, and aquatic habitats. Heavy metal toxicity is demonstrated in any ecosystem when levels exceed allowable thresholds or the necessary concentration (Raychaudhuri et al., 2021)6. Most exhibit moderate to high levels of chronic or acute toxicity to fish. While the applicant appears to seek to downplay the pollution risk posed by the DSF:*
>
> > *"The water treatment plant will remain in operation until the DSF is completely restored, after which there will be no discharges from the mine outfall. After the relevant authority agrees that the water treatment plant can be decommissioned, surface runoff from the site will flow directly into the Pollanroe Burn."*
>
> *In fact, Dr. Emmerson (sic) made the challenge eminently clear, in his submission on the safety of the dry stack facility:*
>
> > *"a tailings storage facility is expected to confine the often toxic tailings in perpetuity, which requires the perpetual inspection, monitoring, maintenance, and review of the facility long after the end of the mining project."*

5.25. To be clear, there is no "*downplaying*" by the Applicant of the risks posed by metals (addressed above) or tailings within the DSF. By way of summary (with further detail and references provided below), appropriate consideration has been given to the setting of appropriate discharge limit values and also the transition from active treatment via the RO plant to future passive treatment (as applicable). Correctly and with due regard to the need to adopt a precautionary approach, the Applicant has committed to continuing active water treatment beyond cessation of mining operations. In the future, post closure of the mine and the cessation of all mining operations, passive treatment options will be available and following agreement on detailed design matters, agreement would be sought from the regulating authority that the (RO) water treatment plant can be decommissioned, with relevant Discharge Consents relinquished. Further, it is important to remember that the Applicant has also proposed a set of limit values, at the discharge points, that have no reliance on either a mixing zone or dilution in the receiving water environment to be protective. No other identified discharge consent, set by either the NIEA or EPA, has this level of inbuild precaution across all parameters.

5.26. Reference is drawn to the Waste Management Plan (Appendix B3 Second Addendum to the ES, October 2020) and in particular to section 12 which describes those commitments made by the Applicant in terms of monitoring post closure, and which includes standpipe piezometers, groundwater and surface water sampling and annual inspections by a Qualified Engineer.

5.27. Section 13.1.1 of the Waste Management Plan specifically concerns the management of leachate and seepage from the Mine Waste Facility during the operation and post-closure phases. This section summarises the design measures included for the filtered stack, plus monitoring provisions for the prevention of environmental pollution. To be clear, all of these features will be instigated at the pre-construction phase and will continue through the operational life of the project. There will therefore be at least 20 years operating life and monitoring associated with the measures and also reporting by the Operator to the relevant authorities during this period. These monitoring provisions would continue for at least ten years post closure of the filtered stack landform, to ensure that conditions are in steady state. This is termed the 'Passive Closure' phase.

5.28. Section 13.4.2 of the Waste Management Plan concerns groundwater quality and 13.4.3 concerns surface water quality. These sections, to which the reader is directed, includes details of ground water and surface water monitoring networks post closure.

5.29. Section 15 of the Waste Management Plan describes the Internal Emergency Action Plan with reference to the decommissioning and closure emergency response plan, to be developed in the final years of operations. This detailed plan would be an extension of the operations Emergency Response Plan and would include a detailed Trigger Action Response Plan (TARP) to deal with any eventualities arising post closure. That plan would necessarily be developed in the light of detailed information made available through the monitoring of the operational mine.

5.30. In consideration of the 'long term' (10 years to perpetuity) SRK has proven through detailed stability analysis that the facility as designed can withstand extreme loading scenarios (such as liquefaction of the tailings during the Maximum Credible Earthquake for instance). Even under these extreme conditions, design calculations apply factors of safety against slope failure, above and beyond the required minimum. The reader's attention is drawn to TR22 and RR22 which describe the robust assessments, the mechanisms to be employed and the design and monitoring provisions which have been specifically devised to prevent those potential 'failures' (as described by objectors) from occurring.

5.31. Furthermore, and importantly, the Closure Plan [Appendix B5 of the ES] specifically details that the DSF will be covered and surfaced so as to limit any interaction between water and waste materials within the DSF (see figure at Appendix B of the Closure Plan).

5.32. Contrary to the views expressed by An Taisce, there is no fundamental lack of detail in the mitigation package and certainly it is not the case that in respect of the passive treatment, the "*mitigation proposed in the ES for this is entirely unacceptable from an environmental law perspective*".

5.33. The position is simply that, once agreement can be reached on the appropriate time to remove the RO from the treatment process, following all necessary monitoring and preparatory / enabling works, it will be acceptable in environmental risk terms, to move to passive treatment. The Applicant has

committed to the RO plant remaining in operation, for as long as it is required, so there is in fact no reliance upon passive treatment. For reference, at page 17 of the of the Conceptual Rehabilitation and Closure Plan (ES 2017 Appendix B5) it is stated:

> *"When water quality monitoring results show acceptable target values are met, the active treatment system will be decommissioned and removed".*

5.34. Further, at page 129 of the Surface Water Impact Assessment 2020 (Appendix C54 of the 2020 ES Addendum) it is confirmed that:

> *"The RO WTP will continue to be operated into the closure period until the DSF is fully reclaimed. In addition, it will be run until it has been demonstrated that surface water from the reclaimed DSF and mine area will be able to be discharged without further treatment, or passive treatment systems can ensure the agreed discharge standards can be met"*.

5.35. Thus, agreed water quality standards relevant to any consents granted, will have to continue to be met through treatment until it is determined (through monitoring) that no residual risk remains. At the post treatment stage (when the RO plant is turned off), monitoring will continue until sufficient data exists (e.g. over several years) to clearly demonstrate untreated source term compliance. At all times NIEA will be in control of the consented processes and as the regulator, it will be in receipt of the data required to determine whether the risks to the receiving environment are such that it is acceptable to move to passive treatment.

5.36. It is a matter of detail which can only follow at a later date and one which would be defined through the programme of inspections and monitoring over the life of the mine and following closure. The monitoring relevant to the life of the mine is described within the SGEMAP**.**

5.37. Finally on this topic, An Taisce claim that because of a "clear pollution risk" and the fact that the fine detail of the passive treatment system has not been defined within the application documentation, the further detail would constitute post-consent conditions. With reference to People Over Wind v An Bord Pleanala (2015) [IEHC 271] in relation to post consent conditions, it is An Taisce's position that since no "definite mitigation" has been provided there is insufficient certainty as to the efficacy of the mitigation and furthermore, there would be no mechanism for public participation in the assessment process associated with the mitigation (passive treatment). It is stated:

> *"This same argument applies here, where a risk to both Northern Irish and ROI rivers and SACs exists on foot of these predicted exceedances, but no definite mitigation has been provided, and the public and relevant authorities are being asked to take a leap of faith that the proposed passive treatment will be adequate for the purposes of preventing ecological damage. From a legal perspective, in particular regard to public participation, we are of the view that this is not compliant with Article 6(3) of the Habitats Directive and the principles outlined under the Aarhus Convention."*

5.38. An Taisce's position here can be distilled as follows. Firstly, that the Applicant's mitigation in respect of passive treatment is not sufficiently certain in its effects and secondly, the public and relevant authorities are unable to comment sufficiently at this stage. These points are addressed below.

5.39. First, in relation to the mitigation itself, it is not accepted that insufficient detail has been provided. As explained above, in any event, as a first line of defence the mitigation strategy ensures that passive treatment would only be relied upon, once it has been determined through detailed monitoring that the decommissioning of the RO plant would not pose a risk to the environment. Monitoring is key throughout all phases and this will guide future revisions to the Rehabilitation and Closure Plan. Appendix B5 of the ES (2017) comprises the submitted Conceptual Rehabilitation and Closure Plan (RCP) and this confirms at section 4.1 that (necessarily) at this (application) stage, certain assumptions have been made regarding the closure, rehabilitation and reclamation approach, but that those assumptions will be revisited in future revisions of the RCP to reflect / include updated information and evidence. It is stated:

> *"The project is currently at the design and permitting stage consequently, a number of assumptions about the closure, rehabilitation and reclamation approach for the site have been made. As the project moves through construction and into operation, the assumptions in this conceptual RCP can be confirmed or adjusted and future revisions of the RCP can reflect the improved knowledge base.*
>
> *For the purposes of this report, SRK has assumed that wherever practicable the project site will be returned to pre-mining conditions. Some infrastructure may be required for a passive water treatment system."*

5.40. There is a clear fail safe in that any use of passive water treatment only ever kicks in when it is determined through site specific monitoring data, which is reviewed and assessed by the regulator, confirms that no risk to the environment exists. In this way the precautionary principle is fully satisfied. Whilst further detail will need to be agreed through further revisions to the strategy over the period leading up to closure (a considerable number of years from now) those revisions and further details can only be based upon data gathered and assessed over the life of the mine. In view of the foregoing, it can however be determined now, at the consenting stage, that the approach is sufficiently certain as to avoid harm and rule out adverse effects on the Integrity of the relevant designated sites.

5.41. Thus, with reference to the quotation above at paragraph 5.37, there is no 'leap of faith' required. Both the public and the relevant authorities have the necessary information before them to determine the efficacy of the proposals and that no adverse effect on Integrity arises.

5.42. Section 4.3 concerns "Waterbodies Assessed for the Purposes of the Water Framework Directive". Paragraphs 1 and 2 refer to the number of water bodies assessed within Chapter 8 (Surface Water) of the ES. It is stated that:

> *"…No consideration appears to have been given to watercourses any further downstream, with no clear apparent rationale for why this is the case:*
>
> > *"The most downstream assessment point within the study area, shown in Figure 8-11, is immediately downstream of the confluence of the Owenkillew and Owenreagh rivers. The assessment showed that impacts on surface water flow and surface water quality at this point are predicted to be negligible..... the negligible impacts of the project downstream of the confluence of the Owenkillew and Owenreagh will be substantially smaller in the rivers downstream of the site, including the Strule, Mourne and Foyle"*

5.43. In addition to matters concerning potential effects on downstream waterbodies, An Taisce refer to the use of drinking water standards in the assessment process, indicating that such standards are not applicable for use in an Article 4 Water Framework Directive assessment. It is stated:

> *"It should be noted that ecological impacts often occur at far lower levels than what would be deemed acceptable for drinking water standards. The assessment which should be carried out to determine no impact is an assessment which is adequate for the purposes of Article 4 of the Water Framework Directive, particularly, from our perspective, in regard to transboundary impacts on ROI waterbodies, namely the River Finn and Foyle, Lough Foyle as well as estuarine and coastal water impacts."*

5.44. Regarding the preceding points, the following comments are made.

5.45. First, the surface water impact assessment concluded that impacts on surface water flow and surface water quality would be "negligible" at the confluence of the Owenreagh and Owenkillew and that beyond this point, impacts would be "substantially smaller", that is, substantially smaller than negligible. If an impact had been identified within the EIA that extended further downstream then the study area under consideration would have been increased. It is clear from the Applicant's Environmental Statement, Addenda and submitted evidence before the Inquiry, and indeed from the quoted information included within An Taisce's submissions, that due consideration has been given to downstream impacts (including potential Transboundary effects).

5.46. Regarding matters concerning the application of drinking water standards, the Applicant has not, at any stage, applied such standards in lieu of assessing the risks posed to the aquatic environment. The use of such standards is described in section 2.1 of Annex 3 to Appendix C4 of the 2nd Addendum to the ES. In short, and to clarify, in the absence of other relevant standards (EQS) being required to be adopted in order to protect the aquatic environment, drinking water standards were adopted. They were also considered where drinking water standards were lower (greater protection) than a relevant EQS value (e.g. arsenic). However, it is pertinent to note that the relevant standards and limit values proposed, have been revisited by the Applicant in view of additional baseline information and in particular in consideration of the identified presence

of salmonids in burns into which mine water discharges are proposed by the Applicant. The reader is directed to Annex 1 of the Water Discharges SoC submitted by the Applicant for this information.

5.47. To be clear, points made regarding the misapplication of drinking water standards, as cited by consultees to this Transboundary consultation, and within the SoCs and rebuttal evidence before the Inquiry, have been fully dealt with by the Applicant With reference to the 2025 sHRA (see Appendix 2) the Applicant relies upon Drinking Water standards only where other guidance / legislation does not assist in determining limit values or where such a value would be more protective than adopting EQS (for example).

5.48. An Taisce also refer to (alleged) previous exceedances of limit values associated with the Applicant's exploration site including exceedances for Zinc. Additionally An Taisce cite FOI information which it states shows that the regulator (NIEA) issued a warning letter rather than moving to prosecute on the basis that other exceedances reported at a number of points were not 5 times higher than the limit ("informal Regulation Group guidelines"). It goes on to state:

> *"Limits are set to align with Environmental Quality Standards; to then say it is permitted to exceed a limit fivefold is not acceptable and seriously compromises the integrity of the protected rivers."*

…….

> *"This previous failure by both the applicant and the regulator to adequately address exceedances in discharges further undermines any confidence in the proposed mitigation measures."*

5.49. All of the above points are linked to the overarching criticism by An Taisce that the Applicant's TR6 places reliance on the setting of strict limit values and the threat of enforcement action where non-compliance occurs.

5.50. First, any asserted failings of the regulator and any internal guidance or procedure is not a factor which can or should prejudice DGL's applications, which must be tested on their own merits. It is not for the Applicant to address that point directly, however it is certainly relevant to be mindful that the Applicant fully intends that the limit values are treated as just that, limits, which should not be exceeded. Whatever internal regulator guidance exists, that has not and would not be a factor which influenced the Applicant's operation of the mine.

5.51. Secondly, it is understood that the alleged exceedances in respect of zinc were not in fact true exceedances. The recorded exceedances resulted from the methodological approach adopted by the regulator, which was flawed for the purposes of reporting on certain parameters. The matter relates to detection limits relevant to the laboratory testing. Where a sample has a concentration at less than the detection limit (i.e. so small that no reliable figure can be attributed) it is sometimes the case that in order to ensure that a fuller data set is available for analysis the result will be recorded as 50% of the detection limit. In some cases, that value will be above the limit value. In short, NIEA was recording non compliances using its own data, however its detection limits were higher than the compliance limit

5.52. Third, all of the Applicant's discharge consent reports (relevant to the existing consent) demonstrate compliance. In respect of an alleged pollution incident with levels of discharge three times higher than permitted levels, it is not accepted by the Applicant that the increase of suspended solids in Curraghinalt Burn during the heavy rainfall event was attributable to its operations.

5.53. Section 4.4 concerns a purported requirement for an Article 4 WFD Assessment. It is stated:

> *"While the ES does provide a chapter on water quality, it does not appear that a specific WFD assessment as required under Article 4 of the Water Framework Directive has been provided in the consultation material made available to the public. This assessment is necessary to determine whether this project may cause a deterioration of the status, or indeed an individual quality element, of a body of surface water or where it may jeopardise the attainment of good surface water status or of good ecological potential and good surface water chemical status. Specifically, they should assess how increasing the load to a system which is already at risk of not achieving its WFD objectives (e.g. the River Finn and Foyle) is ecologically and legally robust, and a thorough cumulative assessment for the purposes of Article 4 of the WFD should be undertaken."*

5.54. An Taisce goes on to state:

> *"We would note there is no consideration of other waterbodies outside of the study area, or other river basin management districts, including those within the ROI jurisdiction. Furthermore, there is a notable paucity of evidence to underpin this statement, given there is no apparent Article 4 WFD assessment capable of allowing a decision maker to conclude with the necessary certainty that there will be no impact on WFD objectives, as elucidated in the Weser judgement. It is our interpretation of the law and jurisprudence that the decision maker has to be able to rule out a breach of Article 4 of the WFD to the same standard as the Habitats Directive does, analogous to an Article 6(3) assessment. This has clearly not been done in this case, and we are of the view that the application documentation has failed to adequately assess the development from an Article 4 WFD perspective, and as such, the relevant authority cannot discharge their obligation as provided by Article 4(1) of the WFD."*

5.55. First, it is not accepted that the Applicant has failed to adequately assess or consider the proposals from an Article 4 WFD perspective. As explained below, all of the relevant evidence in relation to the implications for water quality are before the Inquiry in order that the relevant authority can discharge its obligation under Article 4(1) of the WFD. A specific stand-alone Article 4 WFD assessment report would be an unnecessary duplication of information. The matter is however discussed here for clarity.

5.56. By way of summary, the most pertinent aspects of Article 4(1) require that:

a) Member States implement the necessary measures to prevent deterioration of the status of all bodies of surface water;

b) Member States protect, enhance and restore all bodies of surface water, with the aim of achieving good surface water status at the latest 15 years after the date of entry into force of the Directive;

c) Member States implement the necessary measures (in accordance with Article 16(1) and (8)), with the aim of progressively reducing pollution from priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances;

d) Member States implement the measures necessary to prevent or limit the input of pollutants into groundwater and to prevent the deterioration of the status of all bodies of groundwater;

e) Member States protect, enhance and restore all bodies of groundwater, ensure a balance between abstraction and recharge of groundwater, with the aim of achieving good groundwater status at the latest 15 years after the date of entry into force of the Directive;

f) Member States implement the measures necessary to reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity in order progressively to reduce pollution of groundwater;

g) In respect of groundwater, measures to achieve trend reversal shall be implemented;

h) In respect of protected areas, Member States achieve compliance with any standards and objectives at the latest 15 years after the date of entry into force of the Directive (unless otherwise specified in the legislation under which the individual protected areas have been established);

5.57. Article 4(2) confirms that where more than one of the objectives under paragraph 1 relates to a given body of water, the most stringent shall apply.

5.58. With reference to the above, a WFD assessment requires a demonstration that the project does not:

a) Cause or contribute to deterioration of status.
b) Jeopardise the water body achieving good status.

5.59. Such an assessment is focussed upon the impacts of project activities on the immediate water body and any hydrologically linked water bodies and whether the proposed activities comply with the relevant River basin management plans.

5.60. A full suite of assessment information, relevant to consideration of WFD implications has been submitted. Reference is drawn to the following assessments regarding surface and ground water quality / quantity submitted as part of the ES package of information:

a) Chapter 6 - Physical Environment.
b) Chapter 8 – Environmental and Social Impact Assessment.
c) ES Appendix C3 - Surface Water Baseline Report.
d) ES Appendix C4 – Surface Water Impact Assessment.
e) ES Appendix C5 – Ground Water Baseline Report.
f) ES Appendix C6 – Ground Water Impact Assessment.
g) FEI (2019) ES Appendix C3 – Addendum to Surface Water Baseline Report.
h) FEI (2019) ES Appendix C5 – Addendum to Ground Water Baseline Report.
i) FEI (2020) ES Appendix C3 – Addendum to Surface Water Baseline Report.
j) FEI (2020) ES Appendix C4 – Addendum to Surface Water Impact Assessment.
k) FEI (2020) ES Appendix C6 - Addendum to Ground Water Impact Assessment.

5.61. Reference is also specifically drawn to the following information presented by the Applicant in relation to water quality and quantity matters, including the mitigation proposals as set out within the SoC and Rebuttal stage evidence. For completeness reference is drawn to:

1) TR6 (paragraphs 1.286 to 1.434);
2) Betterment Plan at Annex 13 of TR6;
3) Applicants SoC – Water Discharges: notably Annex 1;
4) Applicants RR9 in respect of Surface Water;
5) The 2025 sHRA at Appendix 2 of this RS: notably Section 5;
6) That information described upfront in this RS regarding WFD (and headwater) matters.

5.62. As a headline point, neither the Pollanroe Burn, nor the Curraghinalt Burn, nor any of the other burns associated with the proposals, are themselves designated as WFD waterbodies. There are instead considered as being part of WFD water body catchments. This is explained in further detail below.

5.63. Detail regarding water bodies in the catchment and those downstream of the project are described at section 2 of ES Appendix C3 (Surface Water Baseline Report). Included at Table 2-1 is information pertaining to the relevant catchments, waterbody Identification Code and a summary of the water body status (as at 2015).

5.64. Of direct relevance to the proposals are two waterbody catchments, Owenkillew River (Drumlea) and Owenreagh (East) River (Drumlea), into which the Curraghinalt and Pollanroe burns discharge (respectively). For completeness, additional information on status of four river waterbodies on the Owenkillew River and two river waterbodies on the Owenreagh (East) River was requested from NIEA in 2025. The information provided includes assessment data from 2024 (along with 2015, 2018 and 2021) and this is presented at Annex 12 of the 2025 sHRA at Appendix 2 of this RS. This information shows that both of these WFD waterbodies are currently classed as “Good” Ecological Status (status maintained between 2015 and 2024) and that each have been assessed as Moderate Chemical status in 2021 and 2024. Regarding chemical status, it is

confirmed that in both instances the move from High status to Moderate status is due to the extrapolated use of data regarding 'ubiquitous, persistent, bioaccumulative and toxic' priority substances (uPBTs). Assessment was not undertaken prior to 2021 and the current assessment programme does not monitor for uPBTs at every site since failures are expected, so data is instead extrapolated. The report confirms that if uPBT data is exclude from the assessment, allowing comparison between all years (2015 to 2014) then High Chemical Status is achieved for both sites across all years.

5.65. Mapping available on the NIEA Catchment Data Map Viewer, shows the delineation of the catchments across Northern Ireland, with each attributed a water body identification code and name. In accordance with this information, each mapped water body / catchment therefore comprises the main river channel/s along with all tributaries and all associated land which drains into the catchment. A plan showing relevant (local to the Application Site) waterbody catchment boundaries, downloaded from NIEA Catchment Data Map Viewer, is included at Annex 12 of the 2025 sHRA (see Appendix 2).

5.66. Gauging stations, for the purpose of undertaking the required monitoring associated with water body status are located within each water body catchment. For completeness, these are shown at Appendix 1 of Annex 12 of the 2025 sHRA.

5.67. WFD monitoring is undertaken on a waterbody catchment scale with data from each gauging station used to inform the assessment. It is this catchment scale approach to assessment which is fundamentally important in consideration of the implications of the Mine proposals in the context of WFD. As stated above, the burns are not 'WFD waterbodies', they represent small composite parts of waterbody catchments, with WFD waterbody status defined and reported upon through the NIEA monitoring process at a range of gauging stations located within each catchment.

5.68. In this context, the correct approach to considering WFD implications in respect of the proposals is not to assess impacts on the micro-scale, effectively elevating each burn to classification as a WFD waterbody, but instead to assess the implications for the burns with reference to the wider (mapped) catchment waterbody as a whole.

5.69. Of direct relevance here, impacts on the burns themselves together with downstream watercourses has been assessed in significant detail. Impacts on groundwater has also been assessed in significant detail.

5.70. The important point is that localised (or temporary) effects, for example on flows or water quality / chemistry, within the burns poses no risk of overall water body non-compliance. In the case of all of the burns affected by the proposals the effect is very localised within the catchment, has a negligible / nugatory impact on water quality (noting too the affect of dilution and mixing in the main rivers) and flows within the main rivers and importantly, would not be observable at the wider water body catchment scale. The impacts of the proposals would not constitute a deterioration in the water body status.

5.71. The proposals would not cause or give rise / contribute to a deterioration of waterbody status and they would not jeopardise the waterbody achieving good status.

5.72. The proposals are protective of relevant flora and fauna (including those qualifying interest features of all relevant designated sites), EQS has been applied alongside stricter standards for all parameters known to be a risk to the aquatic environment. In short, the proposals will not result in a deterioration of the relevant waterbodies.

5.73. Section 4.5 concerns Unassigned Waterbodies. Whilst the point being made is by no means explicit, it is understood that An Taisce's position is as follows. Before granting a consent there must be certainty that the requirements of Article 4 are met and in order to undertake that assessment, the status of the Waterbody must be known (in order to assess any deterioration in status). For the Foyle and Faughan transitional water body and the Lough Foyle coastal water body, WFD status is unassigned and on that basis no assessment can take place, or certainty be concluded regarding a lack of adverse effect. For completeness, An Taisce state:

> *"With regard to the unassigned WFD status of the Foyle and Faughan transitional water body and the Lough Foyle coastal water body, we would highlight the court ruling by Justice Hyland (2018 740 JR), which clarifies how unassigned waterbodies must be treated when assessing planning applications against Water Framework Directive requirements, with implications for projects in proximity to unassigned waterbodies:*
>
> > *"The WFD, as interpreted by the CJEU, requires a Member State to ensure that the requirements of Article 4 are met before permission is granted. It cannot be so satisfied in respect of development affecting a water body whose status has (in breach of the WFD and the implementing regulations in Ireland) not been assigned by the EPA." [para 130 2018 740 JR]*

5.74. First it is noted that An Taisce have failed to recognise that the Judgment on which it relies has been overtaken by further jurisprudence [2021 IEHC 777]. Notwithstanding this, the unassigned status of the cited waterbodies is in fact irrelevant in the context of the assessment of the mine Applications. As already discussed within this RS, the proposals are appropriately protective of the immediately receiving waterbodies both in terms of Habitats Regulations and WFD matters. Put simply, the proposals would not result in any measurable effect on the downstream waterbodies relevant to Transboundary considerations. Effects would be nugatory and indiscernible against the baseline. Full confidence can be had in the lack of any adverse effect on the water quality associated with these sites and there is no need to grapple with the matter of their unassigned status.

5.75. Section 4.6 concerns discharge exceedances, with two key points discussed. The first relates to the Betterment Plan and the difference (in terms of impacts) between agriculture and mining operations at the Application Site. The second

relates to the application of a limit value in relation to Phosphorus within the Discharge Consents. These matters are discussed below.

5.76. Regarding the Betterment Plan and the point regarding whether removal of agriculture can be viewed as a benefit when compared to the introduction of the mine at the Application Site, the following points are made.

1) The question is not whether farming or a mine operation is better for the environment, but rather, is the proposed project acceptable when considering the package of mitigation to be brought forward, which includes *inter alia* enforceable limit values for discharges and any other measures, including those which off-set any increases which are predicted to arise.
2) An Taisce assertion that heavy metal pollution will result from the proposals, arises from the fact that it has failed to recognise that limit values for discharges are set based upon relevant standards which are agreed to be protective of the aquatic environment based upon scientific data.
3) Helpfully, it is accepted that "*Agriculture is indeed a large driver of water quality issues on the island of Ireland"* a position backed by evidence, including within the Owenkillew River Conservation Management Plan (see for example the discussion at section 3 and also Appendix 1 of Annex 13 to TR6) and one which therefore puts a spotlight on the clear need to tackle that issue.
4) In view of the above, it is in fact therefore, very important to consider the implications of removing agriculture from the catchment when weighing up the effects of the overall proposal. The net position regarding water quality, resultant from the project is a fundamental consideration;
5) Regarding the assertion that "*no data or evidence to back up*" the Applicant's position on this matter is plainly wrong. Included at Annex 13 of TR6 is a Betterment Plan. That plan specifically includes an evidence base which supports and quantifies the impacts of agriculture removal in the context of the proposed discharges (section 3 of Annex 13 to TR6). Further information regarding the efficacy of the Betterment Plan is presented at Annex 15 of the 2025 sHRA included at Appendix 2 of this RS;
6) The approach adopted by the Applicant, insofar as matters concern off-setting of Nitrogen, for example through the removal of agriculture, is a tried and tested mechanism in relation to designated site (e.g. SAC / Ramsar site) mitigation. It is fully endorsed by Natural England for example and is viewed as a primary mitigation tool dealing fully with residual impacts on water quality once appropriate (and proportionate) design led mitigation has been incorporated (such as on-site planting / land use, surface water treatment) and the efficiency / associated limit values of WwTWs have been accounted for.
7) Off-setting is also an approach to mitigation which was supported by the PAC in determining the A5 application and thus has been accepted within Northern Ireland. Regarding the A5 application, through the assessment of implications for Tully Bog SAC it was determined that mitigation was required in respect of traffic related air quality impacts. The mitigation strategy was based around nutrient off-setting and focussed upon a combination of tree planting and the removal of agriculture, such that the calculated net effect of the predicted nitrogen deposition on the SAC is neutral. That is to say, the effect of traffic related deposition is fully countered by the measures proposed and there is no increase in nitrogen deposition at the SAC as a result of the scheme. Notwithstanding that the A5 / Tully Bog mitigation

scheme was focussed upon air quality matters rather than water quality matters, the principles are the same, each being related to mitigating increases in nitrogen and the effects thereof. There are therefore very clear parallels and the Applicant's approach to mitigating nitrogen impacts accords with approaches adopted and agreed in Northern Ireland as well as in England.

8) Specifically regarding the statement that "*an increasing number of licenced discharges would improve outcomes for the SAC is similarly confusing logic*", this represents a misunderstanding of the position addressed within TR6. It is not the Applicant's case that more discharges are better for the SAC. Rather that, properly licensed discharges are subject to a regulatory framework and enforcement based on agreed parameters and limit values. There is transparency (through agreed limits and reported monitoring) and a mechanism for control. This is in stark contrast to the lack of control exercised in relation to agricultural emissions to water, known to be a significant issue in relation to water quality in Ireland (as accepted by consultees including An Taisce).

5.77. In relation to Phosphorus, An Taisce state:

> *"We would argue that it is entirely appropriate for set phosphorus thresholds to apply to discharges, irrespective of the baseline pollution level. While the relevant authorities should work to address the exceedances in the baseline, allowances cannot, and should not, be made which would grant this development permission to discharge phosphorus in excess of set standards. Baseline pollution is liable to fluctuate throughout the year, but discharge pollution cannot be permitted to exceed set standards, and any such fluctuation of intake water pollution levels should be factored into a business model whereby the applicant seeks to exploit existing water sources. While diffuse sources of pollution are more difficult to tackle, NIEA is entirely correct to seek to impose relevant thresholds to the discharge, irrespective of the intake levels. This approach can be very much justified from an ecological and a legal standpoint."*

5.78. The primary point being made within TR6 in relation to Phosphorus is that mine project related Phosphorus in the discharges (that which is actually resultant from the project itself) would be negligible and well below baseline levels, so the effect of regulating against this parameter is to enforce against the Applicant having to treat baseline water quality (i.e. it is forced to treat the baseline and therefore water quality which the project has not impacted in a deleterious way.

5.79. However, to be clear to the Inquiry, the Applicant accepts the inclusion of Phosphorus as a parameter in any Discharge Consent associated with the proposals. This is reflected in the revised list of proposed limit values prepared by Kaya Consulting (see section 8.1 of Annex 1 to Water Discharges SoC submitted by the Applicant. Further, the Applicant has presented a revised set of proposed Discharge Limits (see Annex 13 of the 2025 sHRA), which provides for an even stricter limit. It also presents information regarding the efficiency of the RO plant (Annex 17 of the 2025 sHRA) confirming extremely low Phosphorus discharges.

5.80. With reference to TR6 and the associated discussion regarding extant Discharge Consent 068/12/2, An Taisce's state:

> *"It would appear to us that the extant licence is in urgent need of review and amendment in order to bring it into compliance with the WFD and Habitats Directive. While this argument appears to have been advanced in order to argue that NIEA's approach is now too stringent, it would, in fact, appear to suggest that prior licences did not undergo the necessary scrutiny, and a re-evaluation of some of those would appear now to be necessary, beginning with Discharge Consent 068/12/2."*

5.81. This point is addressed simply as follows. It is not the case that "*prior licences did not undergo the necessary scrutiny*", rather they were assessed based on the standards and benchmarks considered relevant at that time. It is however accepted that with the Conservation Objectives for the Owenkillew SAC being recently updated by NIEA (September 2024) to reference aspects of the JNCC Common Standards Monitoring guidance, different, stricter targets for assessing favourable condition and different required limit values for consented discharges are now in play. Given the approach being adopted by NIEA, as regulator for water discharges and consultee regarding designated site and Habitats Regulations matters, it is fully expected by the Applicant that there will indeed be a requirement to review all extant discharge consents and that NIEA will apply the same approach to those other discharge consents as is being applied by it in the case of the Mine proposals.

5.82. For further context in relation to the above, there are eight sewage treatment plants in the Owenkillew SAC catchment. Many of these (including the largest at Gortin) have no regulation (or limit) for any form of nitrogen or phosphorus in the discharge. For the detail, the reader is directed to Section 6 of TR 6. That section of TR6 discusses relevant examples of discharge consents, which have been issued by the Department and its predecessor departments over many years.

5.83. Section 4.7 concerns "Adequacy of Assessment" and the broad points made fall in behind, indeed place reliance upon, the position of Loughs Agency and FODC. Those points are addressed elsewhere in the SoCs and rebuttal evidence already submitted by the Applicant, or elsewhere in this.

5.84. Section 5 relates to "Biodiversity and Habitats Directive Considerations". It is stated upfront that:

> *"This project has transboundary implications for Irish Natura 2000 sites, including the River Finn SAC and Lough Foyle SPA. The River Finn SAC has Salmon and Otter as qualifying interests (QIs), and Lough Foyle SPA has a range waders and water birds as qualifying interests."*

5.85. An Taisce go on to state:

> "…*Native Atlantic Salmon, Salmo salar, are a protected species under Annexes II and V of the Habitats Directive, rely on the health*

of the rivers that would be directly impacted by the water discharge and tailings failure for habitat and nursery purposes. Salmon are highly mobile and are found to be present from the headwaters to the sea, and are very selective about the areas in which they choose to spawn, requiring clean gravels and good water quality. The heavy metal discharge which we discussed above in the water section would have significant potential impacts on the QI Salmon of the River Finn. Additionally, Otter are found throughout a number of the hydrologically connected waterbodies and are a QI of the River Finn SAC. Given the heavy metal toxicity and build up outlined above in regard to water quality impacts, this would have very clear risks for bioaccumulation in the protected otter population as a result of contaminated fish and macroinvertebrates which the otter then predate, in addition to direct toxic impacts on the otters themselves."

…

"Similar to the otter concerns, consideration must be given to the impact on these QI bird species from ingesting potentially contaminated prey species, as a result of heavy metal toxicity resulting from mine discharge. The habitats, feeding sources and reproductive cycles of these protected species are at risk from the potential impacts of this proposal, and so the species themselves are at an unacceptable level of risk as well."

5.86. An Taisce's focus is clearly upon the discharges of metals which in its view have significant potential for impacts on Salmon in the River Finn, with bioaccumulation also considered by it to be a relevant factor for Otter and bird interest features (of the Lough Foyle SPA).

5.87. By way of response, the following points are made:

a) The hydrological connectivity between the relevant sites is not disputed by the Applicant and indeed has been reported by it in the ES and in submissions specific to the Inquiry process (see paragraph 1.142 of TR6).
b) As already discussed, limit values are proposed which are protective of the aquatic environment with reference to relevant standards (e.g. EQS and JNCC monitoring targets). The proposals are protective of the immediate receiving water environment and associated aquatic flora and fauna. Changes to water chemistry further downstream at the designated sites being considered in relation to Transboundary issues would not be measurable, they would be indiscernible against the baseline (nugatory).
c) The operational efficiency of the water treatment process, including the RO plant, combined with the adoption of appropriate standards relating to water discharges delivers sufficient safeguards against impacts related to bioaccumulation and water quality matters more generally. (see Annex 17 of the 2025 sHRA which demonstrates what can be achieved by the RO plant).
d) No significant effects on bird interest features of the Lough Foyle SPA will arise. Points 2 and 3 above are relevant here and additionally, it is notable that the National Parks and Wildlife Service (NPWS)

specifically considers the potential for implications on the Lough Foyle SPA and other (RoI) designated sites, but concludes that only the River Finn SAC needs detailed and specific consideration as part of the (e.g. HRA) assessment process (see further below in relation to the NPWS consultation response).

5.88. Section 5 is titled "Lack of Assessment" and as a headline point this section states:

> *"However, despite the clear hydrological links to Natura 2000 sites in the ROI, the sHRA did not fully assess impacts on downstream SACs, appearing to rely on mitigation measures to screen out the full assessment…."*

5.89. It goes on to reference paragraph 1.142 of the Applicant's TR6 and cite case law, namely the People over Wind CJEU judgement in case C-323/17, culminating in the following:

> *"It is our view that this lack of assessment of Natura 2000 sites further downstream from the development site, including the River Finn and Lough Foyle SPA, contravenes the requirements of the Habitats Directive, and would compromise the practical effect of the Habitats Directive, as outlined in case C-323/17."*

5.90. There is an important distinction to be drawn between the approach of the sHRA (2020) / TR6 when dealing with the suite of designated sites all clearly reported as being relevant to the assessment, and the specifics of the issues being analysed in case C-323/17. It is not the case that the Mine project assessment overall has adopted an approach where mitigation measures have been included at the screening stage of assessment, such that detailed assessment is avoided. The approach was to screen in all relevant sites and it is very clear from paragraph 5.8 of the sHRA (2020) that this is wider than just the Owenkillew River SAC. However, rather than repeat the evidence base and analysis for every designated site, assessment focussed upon the closest receiving environment. Conclusions were presented for that environment and associated receptors (e.g. Owenkillew River SAC) and those designated sites located at a greater distance. The logical approach being that with comparable relevant qualifying interest features and sensitivities (and an increased sensitivity for some parameters in relation to Fresh Water Peal Mussel within the Owenkillew), where the project is acceptable for the Owenkillew, it would also be acceptable for those sites at a greater distance from the proposed Mine.

5.91. Notwithstanding the above, the Appropriate Assessment is to be undertaken by the relevant Competent Authorities where determining whether consent can be granted. That process will necessarily include an analysis of all relevant information including that presented by the Applicant and before the Inquiry (e.g. within its sHRAs, ES, Addenda, SoCs and rebuttal evidence), information submitted by consultees and other groups / individuals and any other information considered relevant. There is no prescribed format for an AA and it will be open to a Competent Authority to proceed in a different manner to that adopted within the Applicant's sHRAs for example. The broad point remains however that where the proposals are deemed acceptable in relation to the protection of the qualifying interest features of the Owenkillew SAC (notably Atlantic Salmon,

Otter and Fresh Water Pearl Mussel), they must be protective of the features associated with the relevant downstream designated sites such that no adverse effect on Integrity arises. This is the case not just because of the distances involved, but also because no additional or more sensitive interest features are relevant to the River Finn SAC.

5.92. Section 5.2 relates to concerns on the "adequacy of assessment", specifically concerning the Applicant's submitted sHRA. An Taisce cite case law and reiterate concerns raised by Loughs Agency and NIEA, however no new substantive points are raised.

5.93. Section 5.3 concerns the Donegal County Development Plan, with specific reference made to the need for compliance with Habitats and Birds Directives and also the protection of water quality. No specific, substantive points are raised.

5.94. Section 7 concerns the matter of flooding. An Taisce suggests that discharges from the mine would increase flooding and pollution risk in the River Finn SAC. It is clear from the SWIA that the mine will reduce flood flows in the Pollanroe Burn and downstream of the mine due to storage of mine water in water management ponds. A flood risk assessment was submitted with the application and Dfl Rivers has confirmed that it has no objection to the development in respect of flood risk. As discussed above, water discharges from the mine site are not only distant but of negligible amounts compared to flows in the River Finn SAC. Impacts on flows associated with the Owenreagh and Owenkillew are discussed in section 5 of the 2025 sHRA. Such impacts are nugatory and it is axiomatic that there would be no measurable effect in relation to the Diver Finn. The same conclusions can be drawn with respect to pollution risk. Discharges from the mine will be controlled by discharge criteria which are protective of aquatic life in the small burns immediately downstream of the mine; never mind further downstream.

5.95. Section 8 relates to "The Marine Strategy Framework Directive" ("MSFD") and the stated need for assessment against it with specific regard had to the need to assess against 11 listed descriptors. It is stated:

> *"The Department should ensure that the proposal is assessed with regard to each of these descriptors to ensure that development works do not contribute to degradation of the marine environment."*

5.96. An Taisce claim that the proposal requires assessment against the MSFD that relates to marine waters. Notwithstanding the assessment that the requirements of the WFD are met in light of the evidence presented, the 11 descriptors[3] were specifically considered to determine whether further assessment was required. They are:

D1 -Biological diversity (cetaceans, seals, birds, fish, pelagic habitats and benthic habitats);
D2 - Non-indigenous species;
D3 - Commercially-exploited fish and shellfish;
D4 - Food webs (cetaceans, seals, birds, fish and pelagic habitats);

[3] 11 directives from the DAERA website

D5 – Eutrophication;
D6 - Sea-floor integrity (benthic habitats);
D7 - Hydrographical conditions;
D8 – Contaminants;
D9 - Contaminants in fish and other seafood;
D10 - Marine litter; and
D11 - Underwater noise.

5.97. The descriptors either do not arise, or have been assessed as part of the evidence presented to date. There are no material impacts on coastal waters, and no material impacts on fish, shellfish or the water environment as discussed.

5.98. Section 9 is titled "EIAs flawed and cumulative impacts not assessed". An Taisce cite concerns raised by Loughs Agency, FODC and NIEA, however no new substantive points are raised.

5.99. Section 10 relates to air pollution and the purported risk of wind-blown particulates impacting upon *"humans, animals and ecosystems across the north of the island and across the jurisdictions of NI and ROI inclusively",* and additionally contributions towards increased acid rain due to the presence of sulphur-containing ores at Curraghinalt.

5.100. It is stated:

> *"These risks, and the lack of consideration that Dalradian has shown for them, is in direct contravention of the revised Ambient Air Quality Directive and the UNECE Convention on Long-range Transboundary Air Pollution."*

5.101. This position is refuted. Air quality impacts, including those related to deposition and impacts on sensitive ecological features are considered as part of the ES and Addenda and evidence base put forward by the Applicant as part of the Inquiry process. Furthermore, to assist the Inquiry, specific consideration has been given to the recently published guidance "*Revised Operational Protocol for assessing ammonia and air pollution impacts on the natural environment (February 2025)*". This document describes a revised approach to assessment in relation to nitrogen impacts. Whilst NIEA has already confirmed that it is content in relation to air quality matters, for completeness, the new assessment is presented at Annex 10 of the 2025 sHRA. This confirms no adverse effect on any relevant designated site.

5.102. Sections 12.1 and 12.2 concern "dinnseanchas" and "solastalgia". The key reference in relation to ecology matters is the purported effect of ecological grief (solastalgia). Whilst the concept is broadly understood and recognised, it is not accepted that it is in fact a true impact relevant to the proposals. The actual impacts of the proposals have been fully assessed and where necessary appropriate mitigation and enhancement measures are proposed. It is this assessment of physical impacts and the fact that no harm arises, which should be given the most significant weight in determining the applications. Dinnseanchas and solastalgia are emotive terms which relate to subjective issues and judgements. The proposals are clearly divisive in view of the representations made, but the concerns of individuals / bodies and objections

raised regarding the Mine proposals (for whatever reason) should not be conflated with dinnseanchas and solastalgia.

6. Matters raised by The Department of Housing, Local Government and Heritage (DHLGH)

6.1. DHLGH's response letter dated 22nd April 2025 confirms that it includes observations made by the "Department's National Parks and Wildlife Service (NPWS)". Salient points are discussed below.

6.2. It is confirmed by NPWS that:

> *"The environmental screening process identified potential transboundary issues for Ireland relating to the River Finn, which flows into County Donegal."*

6.3. It is further qualified that two designated sites are determined to be relevant to its considerations, these being the River Finn SAC and the Lough Foyle SPA. For clarity, no other designated sites are referred to. It is stated:

> *"After consideration of the environmental documentation and other submissions made in the planning history of the proposed development, the scope of the Department's comments focuses on the consideration of impacts on European sites that are downstream of the proposed development. This includes the River Finn Special Area of Conservation (SAC) and the Lough Foyle Special Protection Area (SPA)."*

6.4. Correctly, and in accordance with the Applicant's own assessment (for example, see paragraphs 5.119 , 5.130 and 5.135 of Appendix C10 of the 2nd Addendum ES (2020 Update sHRA) implications for the Integrity of the Lough Foyle SPA are screened out. It is stated:

> *"Potential significant impacts on the **Lough Foyle Special Protection Area have been ruled out due to the lack of a source-pathway-receptor linkage** and the **considerable distance from the proposed development**. Therefore, the remaining comments apply to the consideration of likely significant effects of the proposed development on the River Finn SAC. It is acknowledged that the SAC is hydrologically linked to the proposed development via the confluence between the River Finn and the Mourne River at Strabane. There is therefore the potential for any changes in water quality as a result of the proposed development, to be transported downstream to the SAC."*
>
> *[emphasis added]*

6.5. Insofar as matters concern the River Finn SAC, NPWS are clear that detailed considerations are limited to implications for Atlantic Salmon and Otter. It is stated:

> *"It is clear from the baseline data that has been collected in order to inform the designation of the SAC, that **several of the qualifying interests could not be expected to be impacted** by any effects of the proposed development **due to their location upstream of the confluence of the two watercourses**. Specifically, oligotrophic*

> *waters [3110], wet heaths [4010], blanket bogs [* if active] and transition mires [7140]) occur in the SAC but are not expected to [sic] effected by the proposed development due to their location relative to the confluence with the Mourne.*
>
> *Therefore, it would appear that **salmon and otter are the only qualifying interests that may be vulnerable to any effects of changes in water quality** as a result of the proposed development."*

6.6. Regarding impacts on Atlantic Salmon, it is simply advised that DfI refer to the submissions made by Loughs Agency. The submissions of Loughs Agency are addressed on behalf of the Applicant across this RS and the evidence already before the Inquiry.

6.7. Regarding Otter, in consideration of the site-specific Conservation Objectives NPWS confirm that the only relevant pathway for an impact to arise relates to prey availability (fish biomass), with DfI directed to the submissions of Loughs Agency in that regard. It is stated:

> *"After further consideration of the targets for each of the attributes listed above and based on an assumption that there are no works proposed within or proximal to the SAC, it was concluded that the only attribute that could be impacted by the proposed development could be "Fish biomass available". To this extent, the Department would advise the Department for Infrastructure to refer to the submissions made by the Loughs Agency in respect of impacts on salmon."*

6.8. In stark contrast to the lengthy and wide ranging commentary submitted by An Taisce discussed in the previous section, issues highlighted by the relevant department, insofar as designated sites are concerned, are in fact focussed on one topic and that is effects on fish with a particular focus upon the Atlantic Salmon population.

6.9. Implications for fish / Atlantic Salmon are addressed in section 5 which concerns the consultation response of Loughs Agency.

7. Matters raised by Environmental Protection Agency (EPA)

7.1. No substantive points are made by the EPA. It is simply confirmed that there should be no contravention of the Habitats Directive, Birds Directive and Environmental Liabilities Directive and also that:

> *"In relation to transboundary effects on water, the applicant should clearly demonstrate that there will be no impact from the proposed activity on the downstream Foyle and Faughan Estuaries (UKGBNI5NW250010), Lough Foyle (GBNIIE6NW250) and Portstewart Bay (GBNIIE6NB010) water bodies, which are currently failing to meet their environmental objectives under the Water Framework Directive. These are cross border waterbodies that are monitored by our Northern Ireland colleagues in the Loughs Agency. Further information about water quality in the wider Foyle catchment is available on the Catchments.ie website."*

7.2. As discussed at numerous points within this RS and in the evidence already before the Inquiry, the proposals are protective of the water environment and there will be no degradation of water quality, attributable to the proposals, in respect of the cited WFD waterbodies (or indeed any relevant waterbody).

8. Matters raised by Loughs Agency

8.1. The Loughs Agency submissions in relation to Transboundary issues are relatively extensive and in instances repetitive, in that the same (or substantially similar) points are made under different topic headings.

8.2. Salient points are addressed within this RS however to assist the reader, matters are dealt with in this RS by reference to topic areas, distilling the points raised by Loughs Agency down to those key matters which must be addressed in order to properly inform the Inquiry process and those judgments to be made by the PAC and Competent Authorities. In producing this RS and associated appendices all of the new material provided by Loughs Agency, post SoC is addressed.

8.3. Where necessary, in order to properly address points raised by Loughs Agency, information is presented in order to provide clarification on a point or to provide an update to baseline information (noting the time passage relevant to the application process and the further delays to the Inquiry process).All new substantive information or points raised by Loughs Agency, both as part of this Transboundary Consultation or as previously provided, for example in rebuttal evidence, are dealt with in this section.

8.4. The following broad topic areas have been identified:

1) Hydrological connectivity and the relevance of Transboundary impacts;
2) HRA process / Public Participation;
3) Ecological Value of the burns;
4) Functional Linkage;
5) Atlantic Salmon habitat classification relevant to the burns;
6) Survey results;
7) Headwaters;
8) Flows, water quantity and hydrogeology / hydro morphology matters;
9) Water quality – discharges;
10) Efficacy of the Betterment Plan / agricultural emissions to water in the catchment;
11) Risks from blanket bog disturbance;
12) Adequacy of the evidence base to inform judgements on Integrity;
13) Impacts on European Eel.

Hydrological connectivity and the relevance of Transboundary impacts

8.5. This matter is discussed in section 1 of the Loughs Agency consultation response.

8.6. It is fully accepted that hydrological connectivity exists between the Mine Application Site and designated watercourses within RoI. The hydrological links were recognised within the 2017 ES and reference is drawn to section 1.3 and figure 1-3 of Annex C3 of the ES 2017, clearly describing the relevant connectivity. This connectivity and potential transboundary implications were also considered in sHRA screening assessments (see for example section 4.1 of FEI1 ES Appendix C10, and section 3 of FEI2 ES Appendix C10). This matter has already been discussed within this RS and the detail is not discussed again here.

8.7. It is not accepted that the mine project (taken as a whole and including water discharges and abstraction applications) will give rise to an adverse effect on the Integrity of any designated site, including those downstream sites relevant to Transboundary matters. It is considered that safe conclusions can be reached in this regard and in such matters, the conclusions of Loughs Agency are refuted. Further detail is provided below under the relevant topic headings.

HRA process / Public Participation

8.8. Loughs Agency asserts concern that the Appropriate Assessment is to be undertaken by SES following the closing of the Inquiry. At paragraph 20.1 it is stated:

> "*There is a further concern in this case, given that it is proposed that, for the planning application, SES will carry out the appropriate assessment after the close of the inquiry and then provide that to the Department for Infrastructure for its decision on the planning application.*"

8.9. Paragraph 20.2 states:

> "*The position is that, as proposed, there will be no public participation in the appropriate assessment process. The public will not be consulted as part of the process of preparing the appropriate assessment. This would not be in line with the law.*"

8.10. Loughs Agency go on to reference case law including Gladman v SSCLG & Medway Council [2020]. It is stated:

> *"The right of the public to participate in the appropriate assessment process has been recognised by the High Court in England and Wales, in Gladman v SSCLG & Medway Council [2020] Env LR 7 (paras 62 and 65). The Court there said: "If Appropriate Assessment is required then Article 6(3) requires the decision-taker firstly, to consider whether consultation with the public is appropriate, and, secondly, if it is, to take into account the fruits of that consultation exercise in reaching its decision" (para 65)."*

8.11. The simple point to be made here is that the Appropriate Assessment will (indeed must) take account of all relevant information in reaching conclusions. Regard will be had to the submissions of the Applicant, statutory consultees including agencies / bodies with the remit of advising on nature conservation matters and others who have commented on the evidence base associated with the planning application and Inquiry process. The public have had ample opportunity to provide comment and input in relation to the evidence base through the planning and Inquiry process. It appears however, to be the position of Loughs Agency that the public should somehow have the final say on whether the Appropriate Assessment, which is the culmination of the evidence gathering and assessment process, is acceptable. That cannot be the correct approach.

Ecological Value of the burns

8.12. A laboured point within the Loughs Agency consultation response is that it fundamentally disagrees with the Applicant's categorisation of the Pollanroe, Curraghinalt and Unnamed burns as being of low ecological value and low sensitivity. Loughs Agency's position is that the evidence in relation to Atlantic Salmon in particular means that the burns have to be classified as being of high ecological value. The issue is expressly dealt with in section 8 of the Loughs Agency response although reference to the matter is made at numerous other locations in its consultation response.

8.13. Detail on this matter is provided at pages 6 and 7 of RR6. To further elaborate on that information, given the repeated assertions by Loughs Agency within its Transboundary response, the following comments are made.

8.14. Noting that the survey evidence taken as a whole (see 2025 sHRA for consolidated evidence), identifies localised salmonid presence, not presence throughout the full length of the watercourses and recognised barriers to salmonid movement within the burns, one could determine a section or area as being of higher value or sensitivity. However, one would not automatically reach that same conclusion for the entirety of the watercourse. It is of course standard practice to divide watercourses into assessment units for the purpose of evaluation. The reader is directed to pages 5 and 6 of Annex 23 of TR6 (CSM Rivers). Whilst that guidance describes a process by which watercourses are assessed for the purpose of condition monitoring, it is clear that the assessment approach is one which breaks down the waterbody into composite sections rather than attributing a value or values to the whole watercourse. In respect of defining Evaluated Corridor Sections (ECSs), paragraph 1 on page 5 of that guidance states:

> *"Boundaries between assessment units are most sensibly focused on significant natural features, the most obvious of which are major confluences. Other considerations, such as* ***geological changes or major changes in slope,*** *may also be used. No set procedure is defined under CSM but the approaches used by SERCON (Box 1.0) or by the environment agencies to identify water bodies for the Water Framework Directive are both suitable."*
>
> [emphasis added]

8.15. Box 1.0 on page 6 of the guidance describes an approach to dividing a river into assessment units. Notably, it is confirmed that each "*ECS should have essentially uniform gross physical characteristics of geology, slope, size, etc*." and that ECSs shorter than 10km can be justified, for example where a "s*hort river needs to be divided into ECSs on the basis of major changes in the natural characteristics of the river, but this results in one or more of the ECSs being shorter than 10 km*".

8.16. The important point is that whether one is dealing with a main river of many kilometres in length, or a far shorter tributary, there is a recognised need to divide the waterbody into sections comprising common characteristic, and within those units one may reach entirely different conclusions regarding the quality and

importance of the habitat. Even with the change in baseline information (identified salmonid presence), to which the Applicant has reacted appropriately, that does not then require that any conclusion regarding value or sensitivity is simply applied across the entirety of the watercourse.

8.17. Matters concerning Priority Habitat, and the term “headwaters” in the context of the value which may be applied to the relevant watercourses is discussed up-front in this RS. Those points are considered relevant here.

8.18. However, the classification / terminology used by either side is actually a moot point.

8.19. In real terms, nothing hinges on the classification of the burns as high or low ecological value. The most important issue is whether the identified ecological receptors are appropriately protected from harm. The evidence base has evolved since the original ES was submitted in 2017 and the Applicant has responded to this, with changes made to the proposed mitigation strategy, including revisions to the proposed Discharge Consents limit values. Those changes, despite the assertions of Loughs Agency, have had full regard to the evidence in relation to salmonid presence in the burns. The Applicant is cognisant of the need to be protective of Atlantic Salmon and Trout in the burns and the proposals reflect this.

8.20. Water discharges will be of a quality which not only does not cause deterioration to the downstream waterbodies, but is protective of Atlantic Salmon / trout with reference specifically to JNCC guidance which sets out the key target values for favourable condition, and also to EQS and other guidance where necessary to ensure that the aquatic ecosystem is protected. All of the standards cited for use by the Applicant are entirely relevant and their specific purpose is to protect against harm to the water environment when addressing water discharge matters. Similarly, the matter of flows and changes to channel habitat have been specifically considered (see for example, sections 2 to 6 of the Rebuttal Report in relation to Surface Water submitted by the Applicant) and it is maintained that no significant adverse effects on salmonids will arise.

8.21. Also of relevance in relation to the ecological value of the burns and linked with the asserted impacts on salmon are the assertions by loughs agency that detrimental impacts on macro invertebrates arise. In this matter Loughs Agency paragraphs 9.10, 9.12 and 10.32 are relevant. Paragraph 9.12 reiterates the substantive points made in paragraph 9.10 and is not dealt with specifically here.

8.22. Paragraph 9.10 concerns the Applicant’s methodology (Proportion of Sediment-sensitive Invertebrates (PSI) tool) used in relation to macroinvertebrate surveys and the omission of the Pollanroe Burn, Unnamed watercourse and Curraghinalt Burn from the sHRA. Loughs Agency conclude that:

> *“Combining issues in the assessment methodology for macroinvertebrates, salmon habitat and the omission of the Pollanroe Burn, Unnamed watercourse and Curraghinalt Burn from the sHRA despite the clear presence of the site selection feature and against best practice and relevant case law will result on an adverse impact on the integrity of the Atlantic salmon population and thereby an*

impact on both the Owenkillew River and tributaries SAC and River Finn and tributaries SAC."

8.23. Regarding the invertebrate survey methodology employed, it is acknowledged that the CSM Guidance for Rivers (2016), at Section 4.6.2 Box 3.1 (Page 25) indicates some loss of resolution when PSI is applied to family level. The family data used to assess the PSI in the Applicant's Biological Water Quality Assessment Report are however comparable to the RICT mixed level results and therefore it is considered that any loss of resolution is not sufficiently significant to have affected the results for PSI and the overall conclusions reached by the Applicant. The Applicants results regarding PSI does not indicate a classification (e.g. Good or Poor in relation to a WFD assessment) but rather, it confirms that all sites are generally minimally sedimented and are therefore of more limited importance in relation to macro-invertebrates.

8.24. In any event, impacts on the relevant watercourses, including in relation to water quality and flows (scouring and sedimentation) have been fully assessed by the Applicant. Appropriate limit values are proposed which are protective of the burns in relation to both water quality and flows, matters discussed throughout this RS. The proposals are protective of invertebrate fauna and thus any concerns regarding survey methodology fall away. Further update survey work undertaken in 2025 in respect of invertebrates is included at Annex 18 of the 2025 sHRA.

8.25. Regarding the omission of the Pollanroe Burn, Unnamed watercourse and Curraghinalt Burn from the sHRA, it is accepted that no specific and detail consideration was given to these burns within the 2020 sHRA. It is also accepted on the evidence that these burns fall to be considered in relation to any functional linkage to the SAC. This is a matter addressed within this RS and within the 2025 sHRA. However, it is not accepted that because of the issues highlighted by Loughs Agency, the leap must be taken that an adverse impact on Salmon arises and that the integrity of the Owenkillew River and tributaries SAC and River Finn and tributaries SAC is affected. That is plainly not the case in the face of the Applicant's evidence.

8.26. Paragraph 10.32 again raises the issue that macroinvertebrates are "a vital food source for Atlantic salmon". Again, the position remains that the Applicant's proposals are protective of the flow and water quality in the burns and that no adverse effect on food sources (e.g. invertebrates) will arise.

Functional Linkage

8.27. This matter is discussed at section 16 of the Loughs Agency consultation response. The detail in relation to its position is not repeated here. Its position is encapsulated in paragraph 16.8 of its consultation response which states:

"Achieving the COs for the SAC depends on the upstream watercourses supporting Atlantic Salmon that can move into the SAC, including the three watercourses directly affected by the project. In this case, there obviously is a functional link, because some of the Atlantic Salmon which comprise the population of the Owenkillew River SAC at any particular point in time will spend some part of their lifetime in these three watercourses. Unless it can

be shown that the Atlantic Salmon which spend some time in these three watercourses do not ever spend any time in the SAC watercourses, then the functional link is undeniable. It is plain that Atlantic Salmon which spend some time in these three watercourses at some point in their lifecycle do spend some time also in the Owenkillew River SAC. This is a basic matter of fish biology and the geography of the watercourses. There clearly is therefore a functional link."

8.28. As already discussed above it has always been accepted as part of the Applicant's case that hydrological links between the burns and relevant designated sites exist. Further, as reflected in the Applicant's SoC and Rebuttal evidence, the presence of salmonids (including Atlantic Salmon) in relevant burns, as determined through surveys undertaken in recent years, is accepted and forms part of the Applicant's own evidence base, an evidence base which has informed the evolution of the mitigation package. For clarity, the reader is directed to the 2025 sHRA, which describes the relevant (fish) baseline data obtained by Loughs Agency and the Applicant.

8.29. It is accepted that "functional linkage" exists in relation to the burns. This matter is discussed within the 2025 sHRA.

8.30. There is a clear disagreement with Loughs Agency in relation to the question of how critical the burn habitat is to the SAC Salmon population and in turn whether the burn habitat is necessary to maintain or restore the favourable conservation status of the species. Whilst it is not accepted that the Mine proposals result in losses of Salmon or Salmon habitat, it is notable that clearly, Loughs Agency were content with direct losses of salmonid habitat in relation to the A5 application. Indeed, it is also content to allow the continuation of angling for Atlantic Salmon when it is known that even with a catch and release system in place, post release mortality is a factor. Its own actions, as a permitting and enforcement agency and as a statutory consultee (on other applications) demonstrate that its case in this instance (that losses to any salmonid habitat and losses of salmon at any scale result in an adverse effect on integrity) is a step beyond what is actually required by the regulatory framework when considering the protection to be afforded to the species populations and the relevant SACs. With reference to Annexes 2, 4 and 5 of the 2025 sHRA, none of the burns relevant to the Application, are of significant importance to the Salmon population. Salmon dominate in the main rivers, whilst Trout are the dominant of the two species in the burns. Younger age class Salmon (i.e. parr) have been recorded using the lower reaches of some of the burns, most likely moving in and out of the burns as flow conditions change. It is in this context that one can reach the conclusion that the value of the relevant burns to the Foyle Salmon population is limited. They are not considered to represent Salmon spawning sites or important holding areas, for example. Those areas are within the main rivers. Any records of Salmon in the burns are localised, towards the burn confluences with the main rivers, focussed there because habitat is accessible from the main river, it is suitable for these young fish (e.g. suitable depth) and because barriers or a lack of suitable habitat exist upstream.

8.31. Following from the above, contrary to the view expressed by Loughs Agency at paragraph 17.3 of its consultation response, that "*The three salmonid*

watercourses directly affected by the development have significant carrying capacity", the evidence demonstrates localised use in the context of the length of each watercourse, comparatively small numbers of fish (very limited in the case of the Curraghinalt burn and no positive use by Salmon – see discussion regarding fish survey data at paragraphs 1.74 to 1.113 of TR6, and see also Annexes 2,3,4,5,6, and 11 of the 2025 sHRA) and the fact that we are not dealing with high quality habitat. On the later point, Loughs Agency are at pains to criticise the commentary provided in the Applicant's evidence regarding the grading of salmonid habitat where reference is made to "failing habitat". For clarity, the point to be made is that in applying the grading criteria the higher scores represent a 'failure' to reach the better grade, the habitat is less optimal. The guidance [see Annex 15 of TR6] itself refers to a "fail" in the context of applying the thresholds when undertaking the assessment. It cannot be said from the evidence that we are dealing with pristine salmonid habitat.

8.32. It is however accepted that we are dealing with salmonid habitat and whilst not itself considered to be critical to maintaining or restoring the SAC population (note in particular that at its paragraph 16.9, regarding the Curraghinalt burn, Loughs Agency state "no evidence to rule out the presence of Atlantic Salmon", as opposed to concluding positively in relation to evidenced importance), the burns do perform a function in terms of the maintenance or restoration of (the favourable conservation status) of the Atlantic Salmon population. It is for this reason that the Applicant has reacted appropriately and in a precautionary manner, in view of the fish evidence base. The Applicant has proposed stricter standards in relation to water quality, for example, revising the proposed limit values for those parameters of particular concern in relation to Salmon and adopting EQS standards for discharged water (not something understood to be done elsewhere in the catchment), to ensure beyond reasonable scientific doubt that the habitat used by salmonids is appropriately safeguarded through the proposals. Reference is drawn to the tables included at Annex 13 of the 2025 sHRA, for details in relation to the proposed standards and limit values.

8.33. For these reasons the conclusions reached by Loughs Agency, as cited at its paragraph 18.13 are not accepted. For clarity paragraph 18.13 states:

> *"The proposed development would adversely affect the integrity of the Owenkillew River SAC if it were liable to affect the lasting preservation of the Atlantic Salmon population in the SAC, i.e. to reduce the quantum of the Atlantic Salmon population in the SAC. The Loughs Agency's advice is that the development would do that, and would therefore have an adverse effect on integrity. This means that the application for the development cannot lawfully be approved, as is explained further below."*

8.34. The proposals will not reduce the quantum of the Atlantic Salmon population in the SAC and will not have an adverse effect on integrity.

Atlantic Salmon habitat classification relevant to the burns

8.35. A significant number of references are made by Loughs Agency to the salmonid habitat quality within relevant watercourses, with a general assertion that the Applicant has sought to deliberately downplay the value of the habitat to salmonids and Atlantic Salmon. That is not the case.

8.36. First and foremost, all survey data provided by Loughs Agency has been reviewed by the Applicant and used to inform its judgements regard any need to adapt mitigation proposals. In addition, comparable surveys have been undertaken by the Applicant, with that data also reported and used to inform the impact assessment and mitigation strategy. Appropriate changes to mitigation have been made in view of the baseline.

8.37. Loughs Agency make much of the statements in TR6 (for example) regarding habitat as “failing”. The simple point however is that poorer grade habitats are indeed ‘failing’ to meet a better grade. The language used in TR6 is reflective of that used in the cited guidance on categorising salmonid habitat (see Annex 15 of TR6). It remains a fact that most of the habitat within the burns can be considered as sub-optimal for salmonids including Atlantic Salmon a position which is also reflected in the electrofishing data and various eDNA surveys undertaken by both Loughs Agency and the Applicant.

Survey results

8.38. Numerous statements are made throughout the Loughs Agency response which seek to discredit the Applicant’s approach to assessment. For example, it is stated at paragraph 21.7 that:

> *“There is no evidence of full consideration being given to these important surveys as the Applicant maintains the position of 'low ecological value' of the watercourses.”*

8.39. As stated above, all survey data provided by Loughs Agency has been reviewed by the Applicant and used in tandem with that obtained by the Applicant, to inform its judgements regarding any need to adapt mitigation proposals. Appropriate changes to mitigation have been made in view of the baseline. The presence of salmonids and salmonid fish habitat is recognised and the discharge proposals are reflective of that.

Headwaters

8.40. Matters concerning headwaters are cited at paragraph 5.1 in relation to discharge consent limit values, but more extensively in sections 8 and 10, regarding the value of headwaters to salmonids, specifically Atlantic Salmon, and to the SAC Salmon population.

8.41. A key assertion is at paragraph 8.19 where it is stated:

> *“The proposed development will significantly impact the headwaters of these watercourses which will have downstream impacts on the population of Atlantic salmon within the Owenkillew River SAC at the relevant points in time. Headwaters and tributaries are the foundations*

of healthy functioning river systems. Headwaters are the physical sources of the river system. Natural headwaters, like the three tributaries in this case, are the transition zones between the terrestrial habitat, groundwater and the aquatic habitat. Headwaters are the source of the entire system. They are the connection to the natural springs and flushes and cannot be replaced or recreated. This connection with the terrestrial and groundwater sources means that the headwaters each bring something different to the system, depending on where the headwater rises. Each headwater brings a different combination of nutrients, sediments and flows, meaning each headwater uniquely influences downstream rivers through supply of water, species and sediment. Detrimental impacts on headwaters can damage middle and lower reaches – which are dependent on hydro chemical and sedimentary processes from upstream."

8.42. Matters concerning the term "headwaters" in the context of the value which may be applied to the relevant watercourses (to fish, or in Priority Habitat or WFD terms) is discussed up-front in this RS and also within section 5 of the 2025 sHRA. Those points are considered relevant here and the reader is directed to that information.

8.43. Moreover, the assertion by Loughs Agency appears to be that any alteration of the "combination of nutrients, sediments and flows" at a headwater will cause detrimental impacts on the middle and lower reaches of the river system. This is a vast oversimplification of the matter. Whilst the flow path commentary is recognised and accepted, regulatory provisions and guidance exist to ensure that discharges (and other activities) can take place and that acceptable standards in relation to mitigating impacts are delivered and enforced against, with due regard had to in river mixing and dilution. For clarity, the proposals do not alter the combination of nutrients, sediments and flows in a way which would lead to detrimental impacts on the middle and lower reaches of the river system.

Flows, water quantity and hydro morphology matters

8.44. Loughs Agency make a range of comments in relation to the impacts of the proposed scheme insofar as flows and hydro morphology / channel integrity are concerned. Many points are repeated, but for reference the key paragraphs where commentary is found are within section 10 of its response.

8.45. Cutting through the voluminous commentary and paucity of actual evidence proffered by Loughs Agency, its position can be distilled to a few key points:

a) Loughs Agency considers that flows in the burns will be so materially altered by the proposals that Atlantic Salmon will no longer use them;
b) The impacts (e.g. losses) to the upper reaches of the Pollanroe Burn and Unnamed burn will result in a loss of fish habitat, and will remove a component of a watercourse which is intrinsically linked to the quality of the downstream environment;
c) The changes to the burns including changes to flow rates will affect salmonid habitat (effectively a loss) due to scouring and sediment mobilisation and deposition.

8.46. Regarding the altering of flows, the reader is directed to that information provided up-front in this RS and to Annexes 5 and 11 of the 2025 sHRA. The following comments are made.

8.47. The impacts of the development on stream flows have been documented in detail in the SWIA, SoC and Rebuttals (see discussion as sections 2 to 6 of the Surface Water Rebuttal Report submitted by the Applicant). Quantitative assessments of the change in average, seasonal, low and flood flows have been provided for all of the watercourses discussed by Loughs Agency. This information was provided in the SWIA with a summary for key locations in the response to points raised by An Taisce in Section 2 of this RS.

8.48. The SWIA (see Appendix C4 of 2nd Addendum ES) concluded that any changes in flow in the burn were of minor or negligible significance with the following key points:

- The mine will increase low and average flows (and decrease flood flows) in the lower reaches of the Pollanroe Burn where fish have been observed. These changes are considered positive for fish and fish habitat as they will increase the depth and wetted area of the burn under normal flows and reduce the risk of drying out of the burn
- The mine will result in losses to existing minor streams in the upper reaches of the Pollanroe Burn. These streams are heavily man-influenced and do not contain fish, with the loss of the streams being considered as having an overall Minor significance. Indeed the nature of the habitat and the barriers to fish movement up to these areas means that salmonids would never likely be present.
- The mine will slightly reduce the catchment of Unnamed Watercourse, but the change is small (5% reduction) to the extent it would have a negligible impact on flows in the burn
- The mine will reduce flows in the Attagh and Glenealy burns close to the Existing Infrastructure Area due to the lowering of the groundwater table. Hydraulic calculations in the SWIA and at Annex 11 of the 2025 sHRA show that the impact on water depths and wetted areas in the channels will be negligible given the nature of these burns

8.49. Given the nature of Loughs Agency comments, to provide further context, at Annex 11 of the 2025 sHRA (see Appendix 2), a series of photographs are presented, each taken during recent low flow conditions. These photographs should be viewed in tandem with the calculations of impacts of changes in flow on water depths and wetted perimeter presented at those tables and figures at pages 160 to 166 of the SWIA (Appendix C4 of 2nd Addendum ES). The report at Annex 12 of the 2025 sHRA provides further detail in relation to channel morphonology and water depth /flows. The conclusion to be drawn is that the burns are small, upland streams with very shallow depths under low flow conditions (limited wetted area and depth for fish), coarse bed material (which would be moved under high flow conditions) and which are wide compared to their depth (meaning small changes in flow will result in very small changes in depth).

8.50. Loughs Agency provides no evidence to back up their assertions that 'alterations on flow will be significant' and it does not engage properly with the evidence provided by DGL in the SWIA, SoC or Rebuttal Statements. Further, it provides no assessment of its own regarding the impact of flow on the burns.

8.51. Regarding the mobilisation of gravels / cobbles during higher flows the following points are made.

8.52. The proposed development will reduce flood flows in the Pollanroe Burn. This was covered in detail in the SWIA (see section 9.2.2 of Appendix C4 of 2nd Addendum ES) and has been addressed within evidence already before the Inquiry (see for example paragraph 1.148 of TR6 and sections 2 to 6 of the RR in respect of Surface Water). Even within the LA's own response it accepts that high flows will be reduced in the Pollanroe Burn. However, at paragraph 10.5 of its response, it suggests that erosion and scouring caused by increased flows will 'lead to a reduction in spawning habitat within the Pollanroe Burn', yet it provides no actual evidence, assessments or calculations to support this claim. This is a matter which is specifically addressed within Annexes 5 and 11 of the 2025 sHRA. Even if Loughs Agency's position is accepted in relation to Atlantic Salmon spawning in the lower reaches of the Pollanroe Burn, concerns around erosion and scouring are unsubstantiated. It is high flows and storm events which give rise to significant scouring and erosion effects, and such events are reduced directly by the proposals because of the control exerted over the flows by the proposals. Specific consideration of flows, channel depth and gradient is given in the report included at Annex 5 of the 2025 sHRA, but the simple point is that the proposals will decrease the possibility of erosion and scouring, not increase the possibility.

8.53. Regarding the Loughs Agency comments relating to the altering of low and average flow, the following points are made.

8.54. Although there is seasonality in the flows in the watercourses it is not the case that the watercourses have '*specific flow rates and depths of water at specific times of year'.* Flow rates in the watercourses close to the Project experience frequent and significant changes in flow rates on a daily, weekly, seasonal and annual basis. To support the application DGL undertook an extensive surface water baseline monitoring program that measured flows in watercourses close to the project. These have been reported in detail in the ES.

8.55. Therefore, there is substantial data available on the variability of flows in watercourses close to the project that Loughs Agency should have considered when making their statement. However, it provides no evidence, assessments or calculations to support its conclusions. They provide no assessment of the impact within the streams close to the mine site. In addition, they provide no substantive comment on why increasing average or low flows must be considered harmful to fish. Detailed information (including flow hydrographs) is presented at section 5 of the 2025 sHRA (Appendix 2) and the reader is directed to that information. Annexes 5 and 11 of the sHRA also discuss flows and the impacts salmonids.

8.56. The point to be made is that fish in the burns and the main rivers can and do experience a wide range of flows during all stages of their life. Flows in the burns

respond rapidly to rainfall, with flow rates increasing after rain and then falling during drier periods. The changes in flow conditions due to the mine are well within the range of natural variability and will not impact on the viability of them in terms of habitat for salmonids.

8.57. As has been maintained consistently by the Applicant through the ES and evidence already before the Inquiry, contrary to the position of Loughs Agency, increased low and average flows in the Pollanroe Burn should be considered positively in terms of fish habitat, as it would increase the average flow depth and wetted area of the channel (see Annexes 5 and 11 of the 2025 sHRA).

8.58. Specifically regarding the cited implications for the Unnamed Burn the following comments are made.

8.59. The impact on the Unnamed Burn is covered in the Applicant's Rebuttal Report related to Surface Water (Section 4.14 in response to the LA SoC for the mine). It is also discussed in Annex 11 of the 2025 sHRA (see Appendix 2).

For context, the small catchment area of the Unnamed Burn, to be diverted to the Pollanroe Burn, is close to the topographical divide and distant from the channel. Under low and average flow conditions, flows in the channel will be supported by groundwater and rainfall (or shallow subsurface flows) on land close to the channel in the valley bottom. Changes in flows would therefore not likely be significant. However, a conservative approach to assessment was undertaken and the SWIA ES chapter (Appendix C4 of 2nd Addendum ES) determined that the flow change could result in a 5% decrease in low and average flows. This would be acceptable under UKTAG guidance for WFD.

8.60. Of note, the NIEA hydrology team has already confirmed that 5% change in Unnamed Burn is not considered as significant in terms of flow (see - *NIEA Statement of Case in respect of Abstraction of surface water upstream of the Pollanroe Burn and storage in the Clean Water Pond (AIL/2024/0009) and Abstraction of Mine Water trough dewatering of the underground mine and storage within the West Pond (AIL/2024/0008), Annex AIL 18).*

8.61. Loughs Agency however imply that this 5% change would impact salmon habitat, in the absence of providing any evidence, assessments or calculations to support their conclusions. They provide no quantitative or site-specific assessment of how a small reduction in flows (at 5%) in the Unnamed Burn would impact salmonid habitat.

8.62. Following from the above, in relation to groundwater implications on the Unnamed Burn (See para 10.15 of the Loughs Agency submission) the pertinent points are that:

a) The groundwater modelling predicted no change in groundwater baseflows to the Unnamed Watercourse due to the mine.
b) The Unnamed Watercourse was included in the groundwater model.
c) The underground mine is located to the north of the drainage divide between the Owenreagh and Owenkillew catchments (on the Owenkillew side) and dewatering of the mine is not predicted to impact the Unnamed Watercourse.

8.63. Paragraph 10.16 concerns the impact of alterations to natural flows with Loughs Agency asserting that such impacts to headwaters will impact downstream salmonid habitat and in the case of the Unnamed watercourse, impacting on spawning habitat. It also asserts that, reducing flows in the Unnamed watercourse will result in spawning habitat left above the low water level within the burn.

8.64. Loughs Agency provide no evidence for these conclusions, no site-specific assessment or calculations. It concludes that spawning habitat in the Unnamed Watercourse will be exposed above the water level due to the reduction the catchment area, without reference to any spawning habitat location, or any flow or water level calculations. It also makes the leap and asserts that this change would reduce spawning habitat to the point that there is a failure of the Conservation Objective for the Owenkillew SAC, notably not a point raised by Loughs Agency in relation to the A5 proposals. In this matter the reader is directed to the Planning Appeals Commission (PAC) report in respect of the A5 (dated October 2023) (see FODC Rebuttal Appendix 1). Paragraphs 4.52 to 4.54 of the PAC report discuss the impacts on Salmon habitat, including losses of up to 6.8 km of marginal and bankside habitat and the diversion of 48 watercourses with salmonid interest which would involve the permanent loss of some 10 kilometres of supporting habitat. It is acknowledged that mitigation and compensatory habitat is proposed, as also referenced in paragraphs 4.52 to 4.54 of the PAC report, however the scale of those impacts far outweighs those potential / purported impacts cited by Loughs Agency in relation to the mine proposals. It is confirmed at paragraph 4.56 of the PAC report that:

> *"No one sought to argue that the proposed mitigation measures would be insufficient to protect Atlantic salmon. We have no good reason to believe that the species would be adversely affected by the scheme provided these measures are properly implemented".*

8.65. As already discussed, the impact on the Unnamed Burn has been fully considered by the Applicant in the SWIA and evidence already before the Inquiry. Further, the NIEA Hydrology Team also concluded the loss of catchment area to be insignificant in relation to flows.

8.66. Paragraph 10.17 concerns groundwater baseflows. Loughs Agency are not correct in their interpretation as groundwater modelling to support the mine development did not predict any change in groundwater flows to the Unnamed Watercourse due to the pumping of water from the underground mine. This was confirmed in the Rebuttal Technical Report – Groundwater provided in November 2024 (Section 6.1.1).

8.67. As in many other instances, the Loughs Agency provide no actual evidence for their conclusions, no site-specific assessment or calculations. Notably, there are no calculations presented to back up the assertion that the Unnamed Watercourse could have 'extended dry period during summer' and result in 'nursery habitat becoming dry during periods of low flow'.

8.68. Regarding the Loughs Agency commentary in relation to the importance of the upstream sections of the Pollanroe (and other) burns, at its paragraph 10.18, the following comments are made.

8.69. The relevant burns are small, upland watercourses with shallow depths under low flow conditions (limited wetted area and depth for fish), coarse bed material (which would be moved under high flow conditions) and which are wide compared to their depth (meaning small changes in flow will result in very small changes in depth). The reader's attention is drawn to Annex 11 of the 2025 sHRA. With reference to Lidar data, adds further context in relation to depths and flows within the burns. This ties in with the calculations of impacts of changes in flow on water depths and wetted perimeter presented in the SWIA (e.g., Tables 9-9 to 9-11 in SWIA for Pollanroe Burn).

8.70. Reference is also drawn to the information included at Annex 3, which discusses the habitat morphology of relevant watercourses. That information is included in order to address points made by Loughs Agency in relation to the quality of the headwaters of the burns, in particular that associated with the Pollanroe.

8.71. Contrary to the assertions of Loughs Agency, these upper reaches of the Pollanroe burn are suboptimal for salmonids, with features recognised as being barriers to fish passage being present. There is no evidence that salmonids would / or could access the sections of the burn that will be lost under the proposals. Indeed, there is positive evidence that salmonids will not be present in the form of negative results from detailed fish surveys (see section 5 and Annex 7 of the 2025 sHRA).

8.72. It is asserted by Loughs Agency that the removal of the tributaries would lead to altered flow dynamics, reduced water quality or increased sedimentation. The term "flow dynamics" refers to flow rates and velocities in the channel. The reader is directed to Annex 11 of the 2025 sHRA for detail in relation to flow dynamics of the burns. Water quality matters, including those relating to sedimentation have been addressed at length both within the ES package of information and within the Inquiry evidence.

8.73. For ease of reference however, tables showing the flow dynamics of relevant burns presented below.

Pollanroe Burn

	2.04	Pollanroe at Mouth
Catchment Area (km²)	1.4	At cross-section locations

Average Annual Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	39.9	54.9	
Average Velocity (m/s)	0.640	0.660	0.020
Flow Area (m²)	0.062	0.084	0.022
Max Depth (m)	0.083	0.096	0.013
Annual 95%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	6.8	15.8	
Average Velocity (m/s)	0.450	0.520	0.070
Flow Area (m²)	0.015	0.030	0.015
Max Depth (m)	0.047	0.059	0.012
Annual 5%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	140	155	
Average Velocity (m/s)	0.900	0.930	0.030
Flow Area (m²)	0.158	0.169	0.011
Max Depth (m)	0.135	0.141	0.006
2-year Flood Flow	**Baseline**	**Post-Dev**	**Difference**
Fflow (L/s)	1537	1368	
Average Velocity (m/s)	1.700	1.700	0.000
Flow Area (m²)	1.119	0.973	-0.146
Max Depth (m)	0.487	0.449	-0.038

Flow calculations for the Pollanroe Burn

Curraghinalt Burn

Catchment Area (km²)	1		
Average Annual Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	27.8	26.0	
Average Velocity (m/s)	0.360	0.380	0.020
Flow Area (m²)	0.079	0.072	-0.007
Max Depth (m)	0.097	0.092	-0.005
Annual 95%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	4.7	2.9	
Average Velocity (m/s)	0.200	0.170	-0.030
Flow Area (m²)	0.024	0.017	-0.007
Max Depth (m)	0.046	0.037	-0.009
Annual 5%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	100	98.2	
Average Velocity (m/s)	0.550	0.540	-0.010
Flow Area (m²)	0.187	0.188	0.001
Max Depth (m)	0.148	0.148	0.000
2-year Flood Flow	**Baseline**	**Post-Dev**	**Difference**
Fflow (L/s)	1120	1120	
Average Velocity (m/s)	1.690	1.690	0.000
Flow Area (m²)	0.713	0.713	0.000
Max Depth (m)	0.352	0.352	0.000

Flow calculations for the Curraghinalt Burn

Catchment Area (km^2)	1.39		
Average Annual Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	39.6	37.62	
Average Velocity (m/s)	0.390	0.380	-0.010
Flow Area (m^2)	0.103	0.100	-0.003
Max Depth (m)	0.109	0.107	-0.002
Annual 95%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	6.7	6.365	
Average Velocity (m/s)	0.220	0.220	0.000
Flow Area (m^2)	0.031	0.030	-0.001
Max Depth (m)	0.065	0.064	-0.001
Annual 5%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	139	132.05	
Average Velocity (m/s)	0.650	0.630	-0.020
Flow Area (m^2)	0.224	0.217	-0.007
Max Depth (m)	0.173	0.170	-0.003
2-year Flood Flow	**Baseline**	**Post-Dev**	**Difference**
Fflow (L/s)	1570	1491.5	
Average Velocity (m/s)	1.750	1.720	-0.030
Flow Area (m^2)	1.031	0.993	-0.038
Max Depth (m)	0.530	0.516	-0.014

Flow calculations for the Unnamed Burn

Catchment Area (km^2)	0.6		
Average Annual Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	17.1	16.2	
Average Velocity (m/s)	0.230	0.220	-0.010
Flow Area (m^2)	0.077	0.074	-0.003
Max Depth (m)	0.079	0.077	-0.002
Annual 95%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	2.9	2.0	
Average Velocity (m/s)	0.110	0.100	-0.010
Flow Area (m^2)	0.025	0.021	-0.004
Max Depth (m)	0.035	0.030	-0.005
Annual 5%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	60	59.1	
Average Velocity (m/s)	0.370	0.370	0.000
Flow Area (m^2)	0.165	0.163	-0.002
Max Depth (m)	0.144	0.143	-0.001
2-year Flood Flow	**Baseline**	**Post-Dev**	**Difference**
Fflow (L/s)	670	670	
Average Velocity (m/s)	1.110	1.110	0.000
Flow Area (m^2)	0.647	0.647	0.000
Max Depth (m)	0.391	0.391	0.000

Flow calculations for the Attagh Burn

Catchment Area (km^2)	1.1		
Average Annual Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	31.3	30.6	
Average Velocity (m/s)	0.250	0.250	0.000
Flow Area (m^2)	0.124	0.126	0.002
Max Depth (m)	0.122	0.123	0.001
Annual 95%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	5.3	4.6	
Average Velocity (m/s)	0.120	0.120	0.000
Flow Area (m^2)	0.038	0.042	0.004
Max Depth (m)	0.069	0.073	0.004
Annual 5%ile Low Flow	**Baseline**	**Post-Dev**	**Difference**
Flow (L/s)	110	110	
Average Velocity (m/s)	0.420	0.420	0.000
Flow Area (m^2)	0.262	0.262	0.000
Max Depth (m)	0.190	0.190	0.000
2-year Flood Flow	**Baseline**	**Post-Dev**	**Difference**
Fflow (L/s)	1230	1230	
Average Velocity (m/s)	1.420	1.420	0.000
Flow Area (m^2)	0.949	0.949	0.000
Max Depth (m)	0.458	0.458	0.000

Flow calculations for the Glenealy Burn

8.74. The key conclusions to be drawn are as follows:

1) No adverse effects regarding flows or flow dynamics arise as a result of the proposals.
2) For the Pollanroe Burn, where both Salmon Parr and Trout have been recorded in the lower reaches, the change in flows is positive from an ecological perspective, with a reduction in the severity of high flow conditions (so less scouring / erosion and mobilisation of bed material, and an increase in low flow conditions, so slightly more water for fish for more of the time;
3) For the Curraghinalt burn, where small numbers of Trout have been recorded, almost exclusively in the lower reaches of the burn near the confluence with the Owenkillew river (the exception being the 1+ age class trout recorded upstream in 2022), and where inconclusive (at best) eDNA evidence for Salmon was obtained by Loughs Agency for the upstream section; the changes in flows / flow dynamics are negligible.
4) For the Unnamed Watercourse, the Attagh Burn and Glenealy Burn, the changes in flows / flow dynamics are also negligible.
5) There is therefore positive evidence that changes in flow dynamics are not significant and will not lead to any significant increases in erosion or sedimentation within any of the relevant burns.
6) Appropriate mitigation, including limit values for discharges are proposed such that no significant adverse effect arises in respect of salmonids regarding water quality.

8.75. Paragraph 10.20 is a prime example of Loughs Agency making a fantastical statement which has no grounding in reality. It is stated:

> *"Creating attenuation ponds and artificial channels would result in returning adult Atlantic salmon being unable to utilise the instream habitat and would result in the genetic cohort of salmon which return to these watercourses being lost entirely. This will also then impact the genetic integrity of the population of Atlantic salmon within the Owenkillew River and tributaries SAC."*

8.76. Atlantic Salmon do not use the sections of watercourse being lost. With reference to the information presented at section 5 and Annexes 2 to 7 of the 2025 sHRA, there is absolutely no evidence that Salmon will or could use these sections of watercourse. There would be no returning Salmon attempting to use instream habitat in these locations. Any Salmon would be down near the confluence with the Owenreagh, where habitat will not be lost of altered as a result of the proposals. The assertions regarding losses to the genetic cohort and worst still, impacts on the genetic integrity of the population of SAC population of Atlantic salmon are entirely unfounded. So too is the reference to "cascading effects on downstream ecosystems" at paragraph 2021 of the Loughs Agency submission. This is because, not only are the burns evidenced as not being of significant importance for the populations of Salmon, but because the effects on flow are not adverse, resultant water quality in the burns where discharges occur will be protective of salmon / salmonids and with the addition of mixing and dilution in the main rivers, there can be certainty that the proposals will not have an adverse effect on downstream ecosystems.

8.77. The position adopted here by Loughs Agency also runs contrary to the accepted principle that you can recreate suitable habitat for Salmon, a principle that was accepted for example in the case of the A5 application where no concerns were raised by Loughs Agency regarding significant direct losses of Salmon habitat and where new (compensatory) habitat was accepted as being appropriate mitigation.

8.78. Paragraph 10.24 concerns flows, impacts on geomorphology and associated sediment transportation. It is stated:

> *"The applicant states that the mine's water management will lower flood flows in the Pollanroe Burn (point 8 executive summary RR9) and that erosion concerns are overstated; The applicant is wrong. Firstly, the statement* overlooks *the cumulative impacts of increased low and average flows over time on channel geomorphology. While it is accurate to say that erosion typically occurs during high-flow events, even small but sustained increases in low and average flows will alter sediment transport dynamics and the stability of bed material. For example, subtle changes in flow velocity and wetted perimeter will incrementally shift fine sediments and affect the structure and composition of the channel bed and banks. Alteration of the channel bed and banks will impact Atlantic salmon habitat. Reducing the available salmon habitat will result in a failure to achieve the Conservation Objectives of the Owenkillew River and tributaries SAC."*

8.79. Loughs Agency provides no evidence that 'even small but sustained increases in low and average flows will alter sediment transport dynamics and the stability of bed material'. It provides no evidence that 'subtle changes in flow velocity and

wetted perimeter will incrementally shift fine sediments and affect the structure and composition of the channel bed and banks' in a way that would be considered material / significant. It provides no calculations or site-specific observations to support any of these assertions.

8.80. Reference is made to the photographs included at Annex11 of the 2025 sHRA. It is clear that the channels of the burns generally have coarse grained bed material which would require substantial flow velocities to move. Fine sediment does not play a significant role in the geomorphology of these channels.

8.81. For small, upland streams like the Pollanroe Burn it is high flow events that control the channel morphology and which cause changes to channel form.

8.82. As part of the operational environmental monitoring programme (SGEMAP) there will be an annual geomorphological assessment of the Pollanroe Burn that will allow an assessment of any inter-annual changes in the channel and if they were to occur it would trigger mitigation measures to be put into place. Thus the Loughs Agency concerns fall away.

8.83. The Loughs Agency position on this matter sets the bar for a significant impact on the SAC so low that it appears to include slight deviations in fine sediment movement. At such a low bar it is likely that anyone (the Loughs Agency included) causes significant habitat damage (impact on SAC integrity) through the undertaking of fish surveys. The approach taken by it in this instance is also inconsistent with its approach on other projects such as the A5 where 70 discharges directly into 'non-sensitive watercourses' and 'sensitive/salmonid watercourses' alike, across the Foyle catchment, have been unopposed by Loughs Agency with no apparent concerns regarding fine sediment mobilisation.

8.84. Specifically in relation to the A5, reference is drawn to the PAC report (2023) (see FODC Rebuttal Appendix 1). Paragraph 4.32 of that report confirms that there are 70 proposed discharges, with five discharge points issuing directly into watercourses within the SAC itself and a further 65 discharging into tributaries in the wider River Foyle catchment. The submitted Information to Inform an Appropriate Assessment (RIAA, WSP 2022) for the A5, describes at paragraph 4.3.14 that each of these discharges will have a suspended solids 'end of pipe limit' of 50 mg/L during the construction period, with any additional limit to be applied after an agreed mixing zone in the river. Such limits are to be derived based upon an 'uplift' above background suspended solids concentrations. This position is entirely at odds with the approach being taken by Loughs Agency in respect of the Mine proposals.

8.85. Paragraph 10.25 states:

> *"Additionally, the claim that bed material in the Pollanroe Burn is large and resistant to erosion under normal conditions does not reflect reality on the ground (Loughs Agency habitat survey data 2024 Appendix 3). In any event, variations in substrate composition, bank material, and channel morphology would create localised areas of vulnerability. In these areas, moderate increases in flow would accelerate erosion or sediment displacement, leading to downstream sedimentation or changes in habitat conditions. Furthermore, while an annual geomorphology survey is proposed*

as part of the SGEMAP. Geomorphological changes are often incremental and are unlikely to be immediately apparent in annual surveys, particularly if baseline conditions are not well understood or if monitoring does not capture subtle shifts in sediment transport or channel morphology. Given the factual inaccuracies present throughout the applicant's data to this point, Loughs Agency expect any monitoring carried out by the applicant to be of a standard high enough to effectively react to changes in the geomorphology to be protective of salmon habitat."

8.86. First, the '*Loughs Agency habitat survey data 2024 Appendix 3'* provides no detailed information on bed material, geomorphology or bed grain size. There is no evidence that bed material would be moved in low and average flow conditions in the burn, no assessment of likely velocities in the burns under these conditions to be compared to the grain size of the bed material. There is no evidence that increases to low and average flows in the Pollanroe Burn would '*accelerate erosion of sediment displacement'*. Indeed with reference to the information presented above in relation to flows, and that contained at Annex 12 of the 2025 sHRA, changes in the flow regime are not of a magnitude that would significantly alter the movement of bed material or alter sediment deposition. TSS concentrations increase sharply under high flows, and it is during these events that the majority of sediment movement occurs, an effect which will not be exacerbated by the proposals, moreover as discussed previously, the proposals will help to mitigate high flow conditions by introducing an element of control and reducing the effects of high flow / storm conditions.

8.87. Photographs of the burns are provided in Annex 11 of the 2025 sHRA, with a morphological assessment of the channel described in the 2025 sHRA at Annex 4. It is clear from this evidence that the bed material is coarse. There will be finer grained material at the mouth of the Pollanroe Burn at locations where access was not available to DGL, but gravel habitats (5-10mm grain size) still require flow velocities approaching 1m/s before erosion occurs, based on the standard Hjulstrom curve that indicates flow velocities required to erode different sediment sizes. This is a matter discussed at Annex 11 of the 2025 sHRA and the reader is directed to that information.

8.88. It is suggested by Loughs Agency that any changes to the channel would be incremental and not apparent in annual surveys. This of course means that any changes would be very small from year to year and allowing adaptation by fish. It also means that annual changes in bed form due to variation in flow are themselves minor and unlikely to be able to be monitored which would certainly suggest that changes in sedimentation patterns are driven by infrequent high flow events and not normal flow conditions. On the Loughs Agency's own evidence, the mine would have a potential impact that is so small that it cannot be measured.

8.89. Regarding indirect impacts on erosion processes, discussed by Loughs Agency at its paragraph 10.26, the following points are made.

a) No evidence is presented by Loughs Agency to support its claim that changes to flows in Pollanroe Burn will cause any of the effects outlined by it, including reduced vegetation cover or changes in plant species composition or exacerbate bank instability. The evidence presented by

the Applicant demonstrates that the impact on flows within the burns is not significant and erosion together with associated bankside vegetation losses, would not be exacerbated.

b) SWIA (Table 9-9 and 9-10) undertakes hydraulic assessment showing change in water levels of around 0.007 – 0.015m (7 to 15mm) only during average annual and average January flows respectively. The change in flow is well within the range of flows normally experienced in the Pollanroe Burn.

c) Risks of bank erosion is more likely due to uncontrolled livestock than any small change in water levels. LA extrapolate from generalisations about changes to stream banks to the potential failure to meet Conservation Objectives of the SAC, despite no evidence of the first step in the process, never mind the final step. This is all conjecture and does not engage with information provided by the Applicant through the SWIA, SoC or Rebuttal evidence before the Inquiry (see also clarifications provided at Annex 11 of the 2025 sHRA), where detailed information is provided on changes in flows and water levels.

d) The Loughs Agency consider any potential impact on banks as unacceptable with a cascade of hypothetical scenarios. However, as already discussed above for other projects such as the A5 Loughs Agency were content to allow discharges directly into spawning habitat and the direct removal of spawning habitat for stream crossings. The PAC report (2023) is included at LA Rebuttal Appendix 1. At paragraph 4.56 it is stated that: “No one sought to argue that the proposed mitigation measures would be insufficient to protect Atlantic salmon”. These are clear, direct impacts on spawning habitat which were not assessed as resulting in a failure to meet Conservation Objectives of the SAC. However, in the case of the Mine project, Loughs Agency conclude that a small change in water levels or the possible mobilisation of a small amount of sediment over time in a burn has the potential to cause an effect so severe that the Salmon population is at risk and so too the Integrity of the SAC. That position cannot be sensibly supported.

8.90. Paragraph 10.34 states:

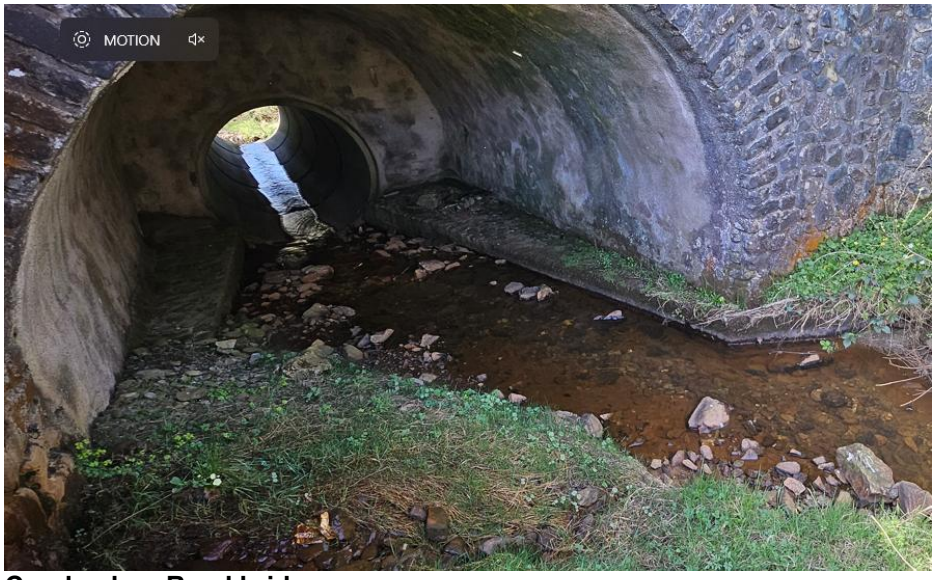
“Loughs Agency agree with Dr. [redacted] in that the three watercourses are all high value and high sensitivity. It is plain from the supporting evidence provided by Loughs Agency (habitat survey, redd counting electrofishing surveys, eDNA results, appendices 1 to 5) that the presence of Atlantic salmon and their habitat means that these watercourses are of high ecological value and are therefore of high sensitivity in terms of man-made alterations. Impacts on upland sections of these watercourses will have a cascading effect of impacts on Atlantic salmon. The alteration of flows through creation of attenuation of ponds, rerouting of a percentage of the Unnamed watercourse catchment to the Pollanroe Burn and the discharge into the Curraghinalt Burn will all impact the individual ecosystems of each watercourse. These impacts will include reduction in available habitat, reduction in

macroinvertebrate numbers and increased likelihood of erosion during flood conditions. These will have downstream impacts on Atlantic salmon resulting in a decrease in the population. This will result in a failure to maintain or enhance the population of Atlantic salmon as outlined in the Conservation Objectives. By reducing Atlantic salmon populations in these watercourses, the applicant will impact the Conservation Objectives of the River Finn and tributaries SAC by reducing the density of out migrating smolts."

8.91. Paragraph 10.36 of the Loughs Agency response refers to matters concerning the Applicant's assertion that parts of the Pollanroe Burn are classified as "heavily modified". Loughs Agency refer to the presence of a two-hundred-year old bridge, stating that this does not constitute heavily modified and instead claiming that this is a naturalised structure in terms of its impact on Atlantic salmon. The following points are made.

8.92. For detailed information the reader is directed to Annex 3. The short point however is that there are a range of features which lead to the conclusion that the upper reaches of the Pollanroe Burn are heavily modified.

8.93. Assuming Loughs Agency are referring to Crockanboy Road bridge, this has a modern concrete culvert inset into the old crossing, which is swept clear of gravel with a drop at its outlet. This is not a naturalised feature or one that has been unchanged for 200 years. It would be a significant barrier to fish, with low flow depths for much of the year and high velocities (in the concrete section) during high flows. There is no evidence for salmonid presence upstream of the bridge. A photograph of the bridge is provided below for context and clarity on the point.



Crockanboy Road bridge

8.94. Regarding paragraph 10.37 and the various assertions by Loughs Agency that naturalising channels is an incredibly complex process (limited chance of success) the following points are made:

a) Re-naturalisation of watercourses is a well-understood science and there are many examples of naturalisation approaches in the UK and further afield. Case studies are presented at Appendix 5.
b) It does not take >30 years to produce a re-naturalised channel and to imply that suggests the LA are not up to date with current practice. Again, reference is drawn to Appendix 5of this RS.
c) It is also notable that in respect of the A5 application, there is to be the permanent loss of some 10km of supporting Salmon habitat and this is to be compensated for by the establishment of new habitat to be delivered before the existing habitat is lost. In that instance (a situation where actual identified Salmon habitat is being lost, and replicated elsewhere) Loughs Agency are content and there appears to be no concern at all around the timescales of delivery for new (naturalised) habitat.
d) Given the state of the upland channels on the Pollanroe Burn (and highlighted in the SLR report at Annex 5 of the 2025 sHRA), the current channels are in poor condition and appropriate re-naturalisation would enhance the situation.
e) Loughs Agency paint a confused picture by repeatedly referring to a 200 year old bridge which has naturalised, a matter clarified above.

Water quality – discharges

8.95. In relation to water quality, from a review of Loughs Agency's consultation response two overarching points arise as follows:

1) Concern that despite the changes made by the Applicant to the discharge consent values as originally proposed (in view of the changes to the evidence base), these proposals still pose a risk of negative impacts on aquatic species [see para 5.1 of LA consultation response].
2) The RO water will result in discharges which are "Ultra clean" [see para 21.4 of LA consultation response].

8.96. There is an obvious point here in that the two positions are hard to reconcile. On the one hand, it is Loughs Agency's position that the discharges will pollute the watercourse/s by virtue of discharges being above what it considers to be thresholds which are appropriately protective of the aquatic environment and Atlantic Salmon in particular. On the other hand, it is clearly concerned that the water will be too clean.

8.97. The matter of water quality relevant to the discharges therefore needs to be addressed through discussion regarding the appropriateness of the standards adopted by the Applicant and the appropriateness of the proposed limit values, and also by the provision of information relating to the operational effectiveness of the RO plant. These matters are discussed below and the reader is also referred to section 5 of the 2025 sHRA (see Appendix 2).

<u>Risk of negative impacts</u>

8.98. Regarding point one above, as stated, paragraph 5.1 of the consultation response is of direct relevance. It is stated:

> **"***Loughs Agency have reviewed RR 6 Surface Water and welcome concessions made by the applicant to meet discharge standards which would have a negligible impact on salmonids. There are however still a number of outstanding parameters which when viewed cumulatively, pose a risk of negative impacts on aquatic species, for example the applicant has classified watercourses into which discharges will be made as rivers instead of headwaters, which gives them an incorrect, higher discharge threshold.* ***21 of the 31 parameters are outside relevant thresholds and standards, including suspended solids, nitrates and phosphorous.*** *Loughs Agency supports NIEA's position in relation to impacts from the proposed discharge parameters*.**"**
>
> [*emphasis added*]

8.99. For reference, updated discharge consent values were presented in the DGL SoC [see Annex 1 of Water Discharges SoC submitted on behalf of the Applicant]. The key update to those discharge consent values presented in the 2020 ES submission was the lowering of many of the proposed criteria to be consistent with EQS, in response to the identified presence of fish in the Pollanroe and Curraghinalt Burns. As noted in DGL Rebuttal Statement for Discharge Consents, these updated parameters are consistent with what LA were requesting in their SoC and as a result it would be expected that Loughs Agency would be content, effectively removing its objection with respect to the discharge values. For clarity, the current position in relation to the proposed discharge consent values is set out in section 5 of the 2025 sHRA.

8.100. However, despite welcoming changes presented in the DGL SoC (at Annex 1 of Water Discharges SoC), in their response Loughs Agency state that there is disagreement over 21 of the 31 parameters in the proposed discharge consent and that they now support NIEA in its position regarding implications of the proposed limit values. Loughs Agency do not specify which 21 parameter thresholds they disagree with or why they now consider individual pre-dilution discharge concentrations (including EQS) are not protective of fish. Nor does it make any attempt to reference concentration limits (either from legislation, literature, or from an existing consent elsewhere) that it would find satisfactory. The reader is directed to the discussion regarding discharge consent limit values included in Section 5 of the 2025 sHRA.

<u>Purity of the RO water</u>

8.101. It is certainly a fact that the RO water will be very clean, however the assertion of Loughs Agency (and also FODC) is that the quality of the discharged water will be so clean that it in itself will have deleterious effects on aquatic life within the burns, giving rise to osmotic shock. This position is wrong for the following reasons:

a) Osmotic shock in fish results from changes in mineral concentrations where an imbalance arises across either side of the fish's cell membranes. It is associated with sudden, drastic, changes in water chemistry;.
b) Fish will not be subject to pure RO water. There will be an element of mixing associated with the proposals. The clean water pond (which will

be fed by natural runoff) will feed water towards the RO outfall, so there will be some re-ionization before the discharge point;

c) The baseline water quality already supports fish and as discussed this water is subject to fluctuations through the year. It will be possible to keep within the natural fluctuation / tolerance of fish within the burn;
d) It is notable that Total Dissolved Solids has not been raised by NIEA as a parameter which should be subject to the discharge consenting process. Notwithstanding this TDS monitoring is already proposed in the SGEMAP for surface waters and the RO plant will be subject to continuous TDS monitoring (with duplicate electrical conductivity meters/probes).

Efficacy of the Betterment Plan / agricultural emissions to water in the catchment

8.102. With reference to RR6 and its commentary regarding the Betterment Plan, nutrient off-setting and the significance of agricultural related impacts on water quality in the catchment (para 21.12 of its response), at paragraph 21.13 it is stated:

> *"This argument is wrong. The proposed mine site will be a highly industrialised area with significant anthropogenic factors interacting across a wide area with the environment.* ***The potential risks and impacts from the construction and operation phases are significantly higher from the mine than the current existing agricultural use****. Additionally,* ***Loughs Agency staff carry out regular anti-pollution patrols in the area in question. Loughs Agency staff have detected no instances of agricultural pollution in these streams over the last 10 years.*** *Further to this, the level of disruption to the environment that the mine site requires, and the disturbance of significant amounts of blanket bog, will cause more harm in terms of hydrology and carbon footprint than the betterment plan can accommodate for."*

[*emphasis added*]

8.103. In this matter, Loughs Agency are misguided. As discussed variously in the evidence and not repeated at length here, the Mine proposals comprise a significant suite of mitigation (and enhancement) measures. With reference to the commentary made earlier in this RS**,** the Mine proposals will be the subject of significant regulatory control and enforcement. Agriculture on the other hand is already a significant contributor to degraded water quality and regulation and enforcement falls a long way short of what is required to improve water quality in the catchment.

8.104. Loughs Agency however, at para 21.13, rather alarmingly distances itself from accepting the facts regarding agriculture as a pathway for water quality impacts. In fact it goes further, making a vague attempt to assert evidence that there is no issue with agriculture. This runs entirely contrary to the threats and pressures information cited within the 2023 Conservation Management Plan (see Appendix 1 of Annex 13 of TR6). It is contrary to information published by Loughs Agency within its Status Reports. An extract from the 2009 status report for the

Owenkillew and Tributaries, is included at Annex 12 of this RS, where "agriculture" is specifically cited as one of the anthropogenic factors affecting the catchments of the rivers. It is however, not clear at all what constitutes a "pollution patrol", what the patrol looks for and where, and what the results of those assessments are. In short, no evidence is presented.

8.105. Following from the above, the Applicant is accepting of a need to meet strict water quality standards in order to protect, for example, fish in the burns and the Integrity of relevant designated sites. This includes Nitrate and Phosphorus, both significant in terms of agricultural run-off. On Loughs Agency's own evidence here, they have not recorded any issues relating to Nitrate and Phosphate, an important point considering neither are intrinsically toxic to the qualifying interest features of the SAC (including Salmon and FWPM) and issues relate to secondary impacts, notably increases in algal growth. Notwithstanding the above, baseline nitrate concentrations have broadly doubled in the Owenreagh over the past ten years and baseline surface water dissolved phosphorus concentrations across the catchment average 0.021 mg/L from 172 observations between December 2023 and April 2025 at project sampling points. Agriculture is the only evident driver for these concentrations.

8.106. Concerning the Betterment Plan itself [Annex 13 of TR6], having regard to the criticisms raised by Loughs Agency regarding its efficacy insofar as providing an ability to deliver tangible benefits as part of the mitigation proposals for water quality issues, and also in view of NIEAs position on limit values, noting that Loughs Agency now row in behind NIEA on matters concerning water quality, additional information is provided by way of clarification within Annex 15 of the 2025 sHRA. That information gives greater clarity on the calculations which support the Applicant's position regarding the benefits of the Plan and it provides a more detailed analysis in relation to agricultural inputs into the catchment, directly addressing the point made by Loughs Agency at its paragraph 12.13.

Risks from blanket bog disturbance

8.107. As cited above, at paragraph 21.13 of its response Loughs Agency state that "*the disturbance of significant amounts of blanket bog, will cause more harm in terms of hydrology and carbon footprint than the betterment plan can accommodate for."*

8.108. This statement follows earlier commentary by Loughs Agency at paragraph 10.11 of its response. The full detail is not repeated here, but for reference, following the statement that "*Disturbance of the blanket bog at the scale proposed poses risk to the structure of the bog which cannot be rectified if damaged",* a series of potential impacts are listed, as follows:

> *"Water contamination – excavation of peat mass can lead to the release of suspended solids and OM into watercourses resulting in pollution and damage to salmonid breeding habitat.*
>
> *Surface run-off – possible hydrological pathway for transporting peat particles and other contaminants into riverine system resulting in sedimentation and water quality degradation.*

Peat mass instability – potential for slides and / or bog bursts depending on hydrology, slope etc.

Leaching – mobilization of organic compounds and mineral acids."

8.109. None of these potential impacts cited represent real risks of the project in view of the proposals and the mitigation package. For clarity the reader is directed to the OCEMP (2019), the Peat Slide Risk Assessment and Mine Waste Management Plan which detail the risks posed and the mitigation to be adopted all included within the submitted evidence.

Adequacy of the evidence base to inform judgements on Integrity

8.110. Loughs Agency assert (e.g. at Paragraphs 19.12 and 21.9 of its response) that the evidence base is incomplete and that it is simply not possible to reach firm conclusions in relation to the tests of the Habitats Regulations, such that consent can be granted. This position is simply not correct. A wealth of relevant ecological data is available to the decision takers / competent authority and the Applicant has used that data, which includes that obtained by third parties such as Loughs Agency, to inform its own assessment and proposed mitigation strategies. Those strategies are robust and will be fully protective of the Integrity of the SACs, including those relevant to Transboundary considerations.

8.111. At paragraph 7.5 Loughs Agency state:

"Loughs Agency continues to collect environmental data in relation salmonid population dynamics and habitat availability in line with our statutory remit. As the competent authority for the protection of Atlantic salmon, Loughs Agency ought to be given an opportunity to share any relevant information pertinent to the HRA with SES and the Department before the planning decisions are taken. Loughs Agency will have further data available by the end of the summer sampling season to help inform the HRA/AA"

8.112. Loughs Agency have repeatedly collected and provided its own survey information throughout the Inquiry process. The Applicant has equally reviewed and assessed that information in conjunction with undertaking and analysing its own survey data regarding habitat quality / importance (for salmonids) and salmonid presence. The Applicant's survey data and assessment work, most recently complied within the 2025 sHRA is current and robust for HRA purposes. Further, the Mine proposals and associated mitigation (including proposed discharge limits and Betterment Plan) avoid adverse impacts on Salmon / salmonids. Additional data provided by Loughs Agency will not undermine the efficacy of the mitigation or justify a different conclusion to that reached by the Applicant. However, the Applicant must be afforded the opportunity to review and comment upon the validity of any additional data provided by Loughs Agency and any assertions it makes regarding that data.

Impacts on European Eel

8.113. Section 26 of the Loughs Agency response concerns Transboundary impacts on European Eel. Whilst this is considered rather tenuous in relation to the matter of Transboundary issues it is considered necessary to address the pertinent points made.

8.114. The broad thrust of the Loughs Agency submission on the point is that impacts on the species (eDNA records in the Unnamed Burn and Attagh Burn) have not been properly considered. Further, it is asserted that:

> *"European eel dependent on the habitat in the Unnamed watercourse will be impacted by the reduction in flows caused by the abstraction of water which is being directed to the Pollanroe Burn."*

8.115. As already discussed elsewhere, reduction in flows in the Unnamed Burn will not have an effect which could be construed as significant in relation to fish, including European Eel. Furthermore, it is disputed that European Eel can be considered to be dependent on the habitat in the burn/s. From Loughs Agency's own submissions at paragraph 26.2:

> *"Unlike Atlantic salmon, European eels do not return to their natal rivers where they feed and grow. Rather, their larvae indiscriminately arrive in coastal waters after being passively carried across the Atlantic by oceanic currents."*

8.116. There is no tie or bond to the burn. It is simply a habitat where the Eel feeds, shelters and grows.