



Inquiry Reference - 2021/WHR01 and 2021/WHR02 Consent to Discharge

TrC 080/20_1

TrC 081/20_1

Rebuttal Evidence November 2024



Fermanagh & Omagh
District Council
Comhairle Ceantair
Fhear Manach agus na hÓmaí

1. Introduction

- 1.1. This is the rebuttal of Fermanagh and Omagh District Council ('the Council') in objection to two applications made by Dalradian Gold Limited ('DGL') under article 7A of the Water (Northern Ireland) Order 1991 ('1991 Order') for consent to discharge trade effluent to waterways. The applications are made in connection with the related application for planning permission for an underground gold mine also made by DGL (LA10/2017/1249/F).
- 1.2. In its main statement of case and rebuttal in connection with the application for planning permission (LA10/2017/1249/F), the Council explained that it obtained the views of expert consultants in order to assist it in these inquiries. Two of the statements of case and rebuttals are relevant to these discharge consent applications. The Commissioner is invited to read these in full.

*Ecology statement of case and rebuttal prepared by Mr Jon Davies
BSc FCIEEM CEcol CEnv of RSK Wilding.*

*Hydrology, hydrogeology and peat statement of case and rebuttal
prepared by Dr Catherine Isherwood PhD MSc CGeol FGS MIMMM of
the Water Research Centre.*

- 1.3. At that stage the Council did not consider that the discharge consents could be granted in the terms sought and offered three draft reasons for refusal for consideration at the inquiry. The Council remains opposed to the applications for discharge as set out in detail in its SoC and this rebuttal.
- 1.4. The Council reserves the right to modify or add to its concerns in respect of these broad areas of concern as the inquiry progresses.

2. Documents reviewed

- 2.1. In preparing this rebuttal the following SoCs, which have been submitted by the applicant have been reviewed.

'Dalradian Gold Limited, Curraghinalt Project, Statement of case, Water Discharge, DAERA Refs: TrC 080/20_1 + 080/21_1'

'Northern Ireland Environment Agency (NIEA) Statement of Case in respect of applications TC 80/20 and TC 81/20 made by Dalradian Gold Ltd, for the discharge of effluent arising from a proposed gold mine operation, near Gortin, Co. Tyrone.

- 2.2. The Council notes that within the DGL SoC, there is a Technical Report, October 2024, Kaya Consulting Limited. This provides updated discharge consent values for Curraghinalt Mine.
- 2.3. In previous correspondence to the Planning Appeals Commission, and also raised in its SoC, the Council has also observed that the representations made in connection with these applications had not been made publicly available.

2.4. In addition, the Council did not receive a full exchange of SoCs in relation to these applications, contrary to the procedures. All these must be made available in advance of the hearing sessions as the purpose of the hearing sessions is to explore the representations that have been made.

3. Comments on SoC submitted on behalf of Dalradian Gold Limited and NIEA

3.1. In its SoC the Council set out in detail its concerns in relation to these applications for discharge.

DGL SoC

3.2. The applicant in its SoC, concludes in relation to discharge matters, that the overall package is one of improvement in SAC water quality terms, and this package is the only tangible solution currently being promoted by anyone which can help restore favourable condition within the SAC. In summary the SoC concludes.

- The Applicant's proposed approach to the setting of discharge limits is fully protective of the aquatic environment. The approach has regard to JNCC guidance and EQS, but crucially it recognises the reality of the existing baseline position in terms of water quality and qualifying species populations, with due regard had to the evidence. That evidence includes:
 - i. A declining trend in baseline water quality associated with key parameters;
 - ii. The litany of failures regarding the enforcement and management of direct and diffuse emissions to the receiving watercourses;
 - iii. The lack of Freshwater Pearl Mussel in the burns into which discharges will occur and a lack of the species within the Owenreagh River downstream of the confluence with the Pollanroe Burn;
 - iv. The documented poor quality of the burns in relation to salmonid (e.g. Atlantic Salmon) habitat and the confirmed lack of Atlantic Salmon in the Curraghinalt Burn altogether;
 - v. The low value, in population conservation terms, of the Pollanroe Burn for Atlantic Salmo; and
 - vi. Other guidance and the approach adopted in other jurisdictions (e.g. the Republic of Ireland) relevant to the protection of the water environment and Freshwater Pearl Mussel in particular

- The Applicant's approach to the water treatment process and the setting of discharge limits involves delivering 'better than baseline' for key parameters. In this light the approach would directly assist in delivering a movement towards favourable condition insofar as water quality in the SAC is concerned. The overall package also includes further, quantifiable betterment, principally delivered through the complete

cessation of farming practices on land under the Applicants control, removing a source of nutrient enrichment of the SAC.

- The approach to the setting of discharge limits as advocated by DAERA / NIEA has little grounding in evidence, is ill-conceived and is unworkable.
- Insofar as matters concern the Applicant's (revised) proposed discharge limit values, it can be safely concluded that the proposals will not undermine the relevant Conservation Objectives and that no adverse effect on the Integrity of the SAC arises should these limit values be adopted. The overall package is one of improvement in SAC water quality terms, and this package is the only tangible solution currently being promoted by anyone which can help restore favourable condition within the SAC

3.3. The technical Report, October 2024, Kaya Conulsting Limited, provides updated discharge consent values for Curraghinalt Mine and in summary concludes.

- Compared to the Second Addendum to the ES predicted downstream effects (in terms of changes in baseline water quality) are generally reduced, apart from sites where the baseline concentrations have been updated with additional data collected from 2020 to 2024.
- Overall, the update has reduced many of the discharge consent values. MAC and average EQS will not be exceeded in Pollanroe Burn to protect fish of various age classes. MAC EQS will not be exceeded in Curraghinalt Burn to protect adult fish which may visit the burn. New criteria have been added for parameters which are considered important for FWPM, i.e., BOD and nitrate, with a consent value added for phosphorus.

NIEA SoC

3.4. NIEA raise a number of key concerns within their SoC and in particular section 8 and these are summarised below.

- Both burns are within the catchment of the Owenkillew River Special Area of Conservation (SAC), designated as such for the presence of the Freshwater Pearl Mussel (FWPM), Atlantic Salmon and related habitat and wildlife features.
- The SAC is currently in unfavourable condition for FWPM; and water quality with respect to Biological Oxygen Demand (BOD), nitrates and soluble reactive phosphorus (SRP) do not currently meet the level required. The published Conservation Objectives require that it should be in favourable condition. That will require improvement from the current baseline water quality. Discharges which are not consistent with achieving favourable condition are unlikely to be permissible.

- The information in the applications under consideration appears likely to result in exceedance of the appropriate standards for levels of Nitrate and BOD in the Owenkillew SAC. [Annex G, Table 2a and 2b]. Given this water quality is already assessed as being in unfavourable condition against the Conservation Objective standards, NIEA is unable to ascertain that there will be no adverse effect on the integrity of the SAC for each of the discharge consents, as required under regulation 43 of the Conservation (Natural Habitats etc.) Regulations (Northern Ireland), 1995.
- Based on the information currently available, NIEA would not be in a position to approve the applications for consent to discharge that are currently under consideration, due to the identified potential for negative impact on the designated site.
- The assessment of the proposed consents to discharge is of the information provided to support the current applications. It is understood that these applications apply to the operational period of the mine only and further consideration of any post closure and restoration period would be needed if the proposal were to go ahead. The applicant has provided a Closure plan as part of the Environmental Statement (Vol. 3), but this is intended as a conceptual plan to be used as basis for development of detailed closure, aftercare and surrender arrangements. As such, there is insufficient detail for NIEA to fully assess the potential environmental impacts of this stage of the mine proposal.
- The applicant has sought to engage on the appropriateness or otherwise of the application of the regulatory framework, in setting 'in river' standards. NIEA wrote to the applicant in June 2024 and September 2024 [Annex E] outlining its settled position on these issues. The applicant has yet to respond to this correspondence.
- The technical assessment of TC 81/20 application has identified significant potential issues with respect to flow volume at the Pollenroe discharge point (outfall 4). The applicant does not appear to have adequately considered the impacts of the proposed high-volume discharge at this point, in line with the relevant guidance.
- The current assessment of the proposed applications finds that the likely impact on the receiving water body would be unacceptable in terms of the potential degradation of the habitat for a protected species, notably the FWPM. Additional information and detailed mitigation and/or compensatory measures would need to be provided by the applicant in order for NIEA to proceed with the assessment and consider whether there may be levels at which the impact becomes acceptable.

Council's comments

- 3.5. The Council disagrees with the assessment and conclusions reached within the applicants SoC and supporting technical report. The evidence available does

not support these conclusions. The Council supports some of the conclusions reached by NIEA in their SoC.

3.6. As outlined in its SoC, the Council relies principally on the evidence of Dr Catherine Isherwood and Mr Jon Davies on these matters.

3.7. The main issues raised by Dr Isherwood in her rebuttal, Hydrology, Hydrogeology and Peat November 2024 can be summarised as follows;

- The apparent absence of water quality data or consideration of hydromorphology of these smaller watercourses remains a significant concern in relation to their assigned sensitivity rating. On this basis, I am unable to change my opinion that the watercourses should all be assigned 'High' sensitivity status in line with the precautionary principle and accepted industry best practice, and that the significance of impact has been considerably under-stated in the ES and supporting documents.
- Taken together, the stated under-rating of the smaller watercourses, the loss of extensive wetland habitat and nearly 1 km of natural watercourse channel, the changes in flow patterns to both the Unnamed Watercourse and Pollanroe Burn and the proposed discharge of up to 75% additional water volume arising from an RO process give rise to very serious concerns over the standard of the impact assessment.
- The potential for metal pollution, particularly in the post-closure phase via the discharge into the Curraghinalt Burn, remains a concern as no details have been provided in relation to the sizing and treatment efficiency of the settlement pond at the discharge location.
- The potential for sediment contamination has been considered in part, but there are no management methods provided to minimise fine sediment reaching the RO plant beyond use of the settlement ponds around the site. These are unlikely to be sufficient on their own. Under current proposals it is likely that the RO membranes would become clogged and damaged very quickly, leading to breakdown and failure of the water treatment process.
- In my professional opinion, when considered together, it is not possible to state beyond reasonable scientific doubt that the Proposed Development would not adversely affect the integrity of European designated sites.

3.8. The main issues raised by Jon Davies in his rebuttal, Ecology can be summarised as follows;

- Mr Goodbun also (para 1.73) talks of 'a purported 'functional linkage' [my emphasis but his speech marks] existing between the SAC and the Pollanroe / Curraghinalt burns', and also says that 'it is disputed that the either of the burns perform a function which is significant in the context of maintaining the populations of species (e.g. Atlantic Salmon) for which the SAC is designated'. This disregard for the role of these watercourses as 'functionally-

linked land' for the SAC species (including salmon, otters and freshwater pearl mussels, all of which will depend to a greater or lesser extent upon the wider catchment of the Owenkillew River) is, in my opinion, a major shortcoming of the assessment.

- In the Water Discharges SoC, Mr Goodbun (in paras 3.7-3.8) provides a number of reasons why he considers that DAERA's approach to the setting of limit values for the discharges from the project to the Owenkillew SAC is inappropriate. These are largely based upon his assertion that neither the Pollanroe burn nor the Curraghinalt burn support the qualifying species of the SAC and/or are of any importance for these species (indeed he explains in para 4.7 that 'The Applicant's proposed approach... recognises the reality of the existing baseline position in terms of water quality and qualifying species populations, with due regard had to the evidence'). However, as I have established, the survey and assessment work has been insufficient to be able to draw this conclusion.
- He concludes by stating that 'In a worst case scenario where the burn is lost to the species as a resource, the effect would not be significant for the population [of Atlantic Salmon]'. First of all, the worst case scenario would happen (since almost a kilometre of the Pollanroe burn is to be lost), but also it is inappropriately dismissive to state that the permanent loss of a watercourse that is actually used by salmon (as well as otters, and potentially freshwater pearl mussel) would not be significant. It is also notable that Mr Goodbun does not mention otter in his consideration of the implications for the Owenkillew SAC, given that this is also a qualifying species of the SAC, and that the species could also be significantly affected.
- In the response to DAERA's letter of 5th September 2024, Kaya Consulting (as reported in TR6) say that 'the overall approach to setting discharge limits as described by NIEA... is fundamentally flawed. It is baseless in view of the scientific evidence regarding the lack of use of the Curraghinalt Burn by Atlantic Salmon, limited use of Pollanroe Burn by that species and the absence of Freshwater Pearl mussel from both'. Again, this is not an accurate assessment of the evidence. Therefore, Mr Goodbun's conclusion that 'The Applicant's proposed approach to the setting of discharge limits is fully protective of the aquatic environment' and his assessment that DAERA's approach is inappropriate, is itself fundamentally flawed. This all just serves to emphasize that insufficient consideration has been given to impact pathways and potential effects. HRA requires a higher burden of proof ('beyond reasonable scientific doubt') than suggested here.
- With regards to the validity of the Applicant's case regarding discharge consent limits, Dr Isherwood critiques this in her evidence, so I will not repeat that here, other than to reiterate that properly managing and monitoring the discharges from the mine, and understanding what the impacts might be of, for example, elevated levels of chromium or sediment, is essential given the protected status of the Owenkillew River SAC and the sensitive nature of the watercourses feeding into it.

- Of these impacts, one of the most significant is siltation, given the very significant amount of earthworks that will be involved with the proposals and the fact that freshwater pearl mussels, salmon spawning gravels and Ranunculus beds are all vulnerable to long-term damage by increases in suspended solids. Of all the water quality parameters that could potentially contribute to the current unfavourable status of the SAC populations, 'only suspended solids were generally lower than the threshold' (para 1.240 of TR6) whilst other parameters are currently largely exceeded, emphasizing the risk of increased siltation as a result of the proposals.
 - The survey and assessment work carried out by the Applicant was insufficient to properly understand the implications of the proposed gold mine for key ecological receptors (in particular, Designated Sites, aquatic habitats and species, and peatland habitats), and that the conclusion of a lack of significant ecological effects was unsound.
 - Instead it seemed more likely that significant effects, especially upon the more sensitive habitats and species, would be more likely given the scale of the works, the sensitivities of the receiving environment and the inadequacy of the proposed mitigation.
 - The majority of the update surveys provide a very limited, and sometimes inaccurate evaluation section, even where there was clearly relevant new information. Given that the purpose of the follow-up surveys is to ensure that the impact assessment remains appropriate, much greater analysis of the difference between the previous and current surveys is required, not least because the additional information is supposedly strengthening the evidence base and should thus allow a more nuanced and in-depth assessment of the baseline situation and thus the impacts.
 - Having reviewed the new information provided by the Applicant, therefore, my contention is that all of the draft RfR remain unchanged, and that it has not been demonstrated that there will not be significant impacts upon European designated sites, ASSIs, European Protected Species, nationally protected species and other habitats and species of conservation importance. Overall, it is clear that biodiversity will not be protected or conserved as a result of the proposals, quite the contrary.
- 3.9. Accordingly, as outlined in its SoC and based on the above, the Council has concerns about the impacts that the discharges could have on ecological receptors in particular, impacts on Fresh Water Pearl Mussel and otter.
- 3.10. On the basis of the information which is currently before it, the Council does not consider that adverse effects can be ruled out from the discharges which have been proposed.
- 3.11. In light of all the concerns raised by the Council's expert witnesses, NIEA and other consultees, the draft reasons for refusal as previously set out in its SoC remain.

