Loughs Agency
Gníomhaireacht na Lochanna
Factrie fur Loughs

Planning/Water Appeals Commission
Park House
89-91 Great Victoria Street
Belfast
BT2 7AG

18 October 2024

Dear Sir/Madam

Dalradian Gold Curraghinalt Project – Conjoined Local Inquiry in relation to LA10/2017/1249/F, LA10/2019/1386/F, LA11/2019/1000/F, AIL2024_0008, AIL2024_0009, TrC 080/20_1 and TrC 081/20_1

Thank you for your recent correspondence in relation to the above-mentioned proposed development. Loughs Agency is the statutory body charged with the conservation, protection and development of inland fisheries within the Foyle and Carlingford systems, the promotion of development of Loughs Foyle and Carlingford, and catchments for commercial and recreational purposes in respect of marine, fisheries and aquaculture issues and the development of marine tourism.

Executive Summary

Loughs Agency provided comments to Department for Agriculture, Environment and Rural Affairs on 6th June regarding the abstraction licences associated with the Curraghinalt project (LA10/2017/1249/F). As

these concerns have not been addressed, Loughs Agency are presenting them as a combined Statement of Case.

Loughs Agency are of the opinion that these abstraction licences (AIL2024_0008 and AIL2024_0009) are fundamentally flawed.

Loughs Agency have reviewed the associated documentation and have noted several overarching issues which are consistent across all of the documentation presented for each aspect of this conjoined inquiry. These issues can be broadly defined under five themes:

- Factually incorrect information presented as data
- Outdated survey results and datasets
- Surveys not carried out using accepted best practice methodologies appropriate for the area
- Apparent inappropriate application of international standards
- Failure to appropriately consider impacts on surrounding watercourses, in particular; the Curraghinalt Burn, the Pollanroe Burn and Owenreagh as well as “Un-named watercourse”, in the context of salmonid populations

In Loughs Agency’s opinion the reliance on outdated data, factually incorrect data as well as failure to use appropriate best practice methodologies and relevant Standards invalidates the findings of the abstraction licence application and associated reports. These issues are further compounded by the failure to consider surrounding watercourses, which have been proven to contain site selection features in the form of salmonid populations, in the assessments. In Loughs Agency’s opinion the volume of additional data required to appropriately draw conclusions on the impact of this scheme on the aquatic environment is so sizable, that

addressing the issues individually would only serve to compound issues further. Loughs Agency is therefore of the opinion that the environmental evidence base for this application is not robust, and that the environmental assessment should be rescinded and reconsidered from the beginning using contemporary best practice to generate relevant data on appropriate temporal and spatial scales. Any approach other than a wholesale restart of the process is likely to lead to further lack of clarity due to a lack of continuity in datasets.

In this Statement of Case Loughs Agency has reviewed each section of the abstraction and associated documents and highlighted concerns in detail. Loughs Agency has also provided summary data which directly contradicts the findings of the assessment and brings into question any conclusions which have been drawn about the impact of the scheme and the efficacy of mitigation measures put forward.

Statement of Case

Loughs Agency would take this opportunity to outline a number of serious concerns regarding this project and do so again within this, in particular the description of the Pollanroe and Curraghinalt Burns as 'low ecological value'. Loughs Agency have carried out electrofishing surveys with NIEA CDP staff (2021) and consultants acting on behalf of Dalradian Gold (2022). Atlantic salmon and trout were present in both watercourses. Loughs Agency have noted the determinations of the shadow Habitat Regulation Assessment which are inconsistent with the scientific evidence base, in omitting the presence of salmonids from the decision-making

process. Loughs Agency believe that any assessments/models/decisions taken based on the assumption of no salmonid presence/low ecological value within the Pollanroe and Curraghinalt Burns must be reevaluated to appropriately consider potential impacts on fish species.

In terms of the proposed abstraction licences, Loughs Agency would like to raise a number of specific concerns identified through the supporting documents supplied as part of the application:

- The Pollanroe Burn will be diverted to accommodate the Dry Stack Facility. This requires Section 46 consent from Loughs Agency as this disturbs the natural bed of the river.
- This diversion is to maintain 'minimum flow' within the Pollanroe. As the presence of salmonids has not been considered, Loughs Agency require clarification that 'minimum flow' is sufficient to accommodate fish passage upstream.
- Loughs Agency require compensatory habitat to be created within the new diverted channel.
- The Pollanroe Burn is to be culverted with a bottomless box culvert. This requires Section 46 consent from Loughs Agency to disturb the riverbed.
- Loughs Agency require clarification on the number of outfalls and their location as only outfall 4 is shown on Figure 2-1 of the Curraghinalt Gold Project: Abstraction Licence Application (Surface Water).
- Section 2.2 Calculations of abstraction volumes (m3) per day – Loughs Agency requests clarity on why a weather station was not installed at the site. The nearest rainfall data is from a site

approximately 11 miles away at a lower altitude on the leeward side of the mountain, Loughs Agency question the applicability of weather data from this distance away.

- Loughs Agency request clarification on Section 2.2.1 under Water return in relation to the '… site-wide water balance models the expected inflows to and outflows from the project but does not track the proportion of each inflow source at outflow locations.'
- Section 2.2.1 under the heading Water Return outlines that the impact of the changes to water quantity were assessed as part of the EIA process and residual impacts were considered 'not significant'. As highlighted previously, if this determination was made based on the assumption of 'low ecological value' due to omission of salmonid presence, in particular the protected species Atlantic salmon, then this application should be refused until such times as the applicant can demonstrate that the impacts of the proposed abstractions will have a negligible impact on the protected species and its habitat.
- Loughs Agency request clarification on the storage of abstracted water in terms of how much of the abstracted flow into the Clean Water Pond will be passed through to the Pollanroe Burn and how much will be stored within the Clean Water Pond. Will this impact flows within the Pollanroe Burn?
- Loughs Agency request clarification on the following passage found in Section 3.1 – 'The assessments demonstrate there is no adverse impact on the aquatic environment from the abstraction, in terms of shortages of supply, increased pollution through reduced dilution or damage to habitats **dependent on the water body**' (emphasis

Loughs Agency). The phrasing 'dependent on the water body' requires clarification.

- Section 3.2 Setting of the project outlines the characteristics of the area in relation to rainfall. Loughs Agency would highlight that the area is characterised by flashy stream flows and stress the need for the data inputs for the applicants model to be of the highest quality. Focusing on general regional-scale rainfall averages risks under-appreciating the scale of peak stormflows in these environments. There is an increasing body of evidence, from studies in Northern Ireland which show that a substantial majority of loads from runoff occur during these short stormflow events [1]
- Section 3.3 Summary of site-wide water balance discusses the number of model scenarios and storm water calculations being based on daily (24 hour) storm durations. Loughs Agency are concerned that neither of these are sufficient to accurately model the impacts of the proposed development. 100 realisation falls short of what Loughs Agency would expect with a range between 500-10,000 being more suitable[2]. Similarly, 24-hour data points are proportionate for large-order rivers. With small flashy streams, 24-hour data points can miss the storm event. Hourly monitoring would have been more a appropriate target for this project.
- Section 3.4 Summary of Groundwater Impact Assessment – Loughs Agency are concerned that with the removal of overlaying peat

[1]Atcheson, K., Mellander, P. E., Cassidy, R., Cook, S., Floyd, S., McRoberts, C., ... & Jordan, P. (2022). Quantifying MCPA load pathways at catchment scale using high temporal resolution data. *Water Research*, *220*, 118654

[2]Bukaçi, E., Korini, T., Periku, E., Allkja, S., & Sheperi, P. (2016). Number of iterations needed in Monte Carlo simulation using reliability analysis for tunnel supports. *Int J Eng Res Appl*, *6*(6), 60-64.

layers, the risk of contaminants from the surface entering the aquifer is heightened due to an increased hydraulic conductivity to the underlying rock.

- From the same section, are the 0.1m and 5% level change thresholds a standard or are they specific to this project?
- Section 3.4.1 outlines a 3% change, due to dewatering, to the mean summer flow of the Curraghinalt and Attagh Burns. This could have negative impacts on salmonids during drought conditions with less water resulting in higher instream temperatures and reductions in levels of dissolved oxygen.
- Loughs Agency request clarification on whether any monitoring will be put in place to identify if peatland has been impacted and if mitigation measures are in place? Forecast changes to peatland water levels highlights that upland peat areas in stream valleys could potentially be in hydraulic continuity with weathered bedrock groundwater and more susceptible to dewatering impacts. Impacting additional peatlands outside of those which are to be excavated is a significant concern for Loughs Agency with potential impacts resulting in decreased water quality.
- Section 3.5 Summary of Surface Water Impact Assessment table 3-2 outlines the sensitivity of watercourses for surface water quantity assessment. This table states that the Pollanroe and Curraghinalt Burns are of ‘low’ sensitivity due to ‘low ecological value’. Loughs Agency have scientific evidence which verifies the presence of salmonid (species) in both watercourses. This further highlights the Agency’s concern that assessments made in relation to impacts on

the aquatic environment are not based on the best available scientific advice. This is ground for these applications to be refused until sufficient evidence is provided that there will be a negligible impact on fish species, particularly Atlantic salmon and its habitat. Loughs Agency request further clarification on what criteria this 'limited ecological value' was based on.

- Loughs Agency request clarification from the same section in relation to the paragraph discussing changes to hydrological parameters. The applicant cites UKTAG (2008) for the 'maximum permitted change from the natural flow'. Loughs Agency seeks clarity on how diverting from the unnamed watercourse west of the Pollanroe into the Pollanroe can still be considered 'natural flow'?
- This paragraph states that this assessment has considered flow change reference values for Good Status, salmonid watercourses'. The applicant has considered the Pollanroe absent of salmonids and of 'low ecological value'. Loughs Agency would like to highlight the discrepancy in classifying this watercourse against Good Status salmonid watercourses whilst also considering this watercourse of 'low ecological value' absent of salmonids.
- Section 3.5.1 *Potential impact on surface water flow in the Pollanroe Burn, Unnamed watercourse and Owenreagh River due to construction, operation and closure of proposed infrastructure site* states the construction phase will have a negligible change in stream flows. Loughs Agency would like to outline, given the presumption of salmonid absence, negligible change in stream flows does not equate to negligible impact on salmonid species. Impacts on salmonids can

also vary depending on the season, therefore specific windows for works are required to protect aquatic species, e.g., instream works such as culvert construction, watercourse diversions and outfall installations must be carried out between May to September under consent from Loughs Agency.

- Section 3.5.1 outlines an approximate 5% decrease in flows in the unnamed watercourse at the confluence with the Owenreagh River. Again, Loughs Agency would like to highlight that decreased flows can result in higher instream temperatures during low water conditions and can also lead to a reduction in dissolved oxygen which greatly stresses fish species present.
- Section 3.5.1 outlines that the unnamed watercourse which is being diverted into the Pollanroe Burn will not be returned to its natural state following the closure of the mine. Is this the case, and if so why?
- The table *Impact SW01* states the impacts on the Pollanroe Burn, unnamed watercourse and Owenreagh are 'not significant'. Loughs Agency have considerable doubts regarding this conclusion for the Pollanroe Burn in particular as the presence of fish species has been omitted.
- The Kaya report 'Site Water Balance – 2020 Update' Section 2 outlines that water from the treatment plant can be pumped to the clean water pond if there is a shortage. Loughs Agency request clarification on this as treated water is not the same as clean water.

- Section 2.1 states that diversion berm will discharge into the Pollanroe Burn. How will the discharge flow be determined and monitored?
- Section 3.2 states that 'PE was calculated using the Oudin et al (2005) approach. Loughs Agency request clarification on whether this is the most appropriate model for predicting evaporation data for this proposed development when pond/open water specific models for evaporation are available.
- Section 3.5.1 Seepage through Basal Layer of the DSF – Will the seepage through the basal layer of the DSF be treated before entering the Pollanroe Burn?
- Section 3.6 Approach to Modelling Annual Variation in Rainfall – this section states that 54 years of observed rainfall data was used to inform the model. As previously mentioned in this response, Loughs Agency request clarification on whether Lough Fea was the most suitable monitoring station as opposed to installing an on-site monitoring station.
- Section 7.5 Conclusions and Discussion of Conservative Sensitivity Runs – this section states that the sensitivity model highlighted two key model inputs that had the largest impacts on the water balance model. This included rainfall totals however rainfall data is not known for the site specifically.
- Section 10 Summary and Conclusions states that the conclusions made in the 2017 water balance report remain however this did not account for the presence of salmonids within the Pollanroe Burn and are therefore unreliable.

Loughs Agency have outlined significant concerns with the documents associated with this abstraction licence application and advise that until these concerns are addressed to the satisfaction of the AIL team, a licence should be refused. The applicant also requires permission from Loughs Agency for a number of potential developments which will impact the riverbed of a number of watercourses across the proposed site.

It is an offence to remove or disturb any material, including sand or gravel from the bed of any freshwater river within the Foyle and Carlingford Areas without the consent of the Loughs Agency contrary to Section 46 of the Foyle Fisheries Act (NI) 1952, as amended by Article 18(3) of the Foyle and Carlingford Fisheries (NI) Order 2007.

The applicant should also be aware that it is an offence under section 41 of the Foyle Fisheries Act (Northern Ireland) 1952 to cause pollution which is detrimental to fisheries interests.

Environmental Consultation Officer
On behalf of the Loughs Agency