

Save Our Sperrins Statement of Case re Water Abstraction & Impoundment

Curraghinalt Public Inquiry on Goldmining.

October 2024.

Executive Summary

This Statement of Case outlines the impacts from the proposed abstraction of water from the peatland and dewatering of the proposed mine. Abstraction from the peatland would impact the balance of the ecosystem particularly the groundwater and surface water bodies as well as breaching the Climate Change Act (NI) 2022. Dewatering of the underground mine in this location would impact the aquatic environment causing shortages of supply, increased pollution and damage to habitats dependent on the water body. These points plus others, supported by academic research, demonstrate the strong case against granting water abstraction licences to Dalradian Gold. The abstractions contravene the objectives of the Water Framework Directive NI 2017, Fermanagh & Omagh District Council's Local Development Plan 2030, NI Peatland Strategy 2022-2040 & EU Habitats Directive/The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019.

Introduction

Save Our Sperrins opposes the granting of abstraction licences AIL 2024 0008 & AIL 2024 0009 to Dalradian Gold. These Water Abstraction Licences are an essential part of a much larger goldmining project. In the event that the goldmining application LA10/2017/1249/F is refused or rejected, the Water Abstraction component should not be considered or processed as stand-alone applications.

Environmental sensitivity of the site

The environmentally sensitive setting has not been given central importance in this application, especially 'the Sperrins AONB, the Owenkillew SAC & ASSI, the Owenreagh ASSI, the Foyle River & tributaries system SAC & ASSI, the nearby RAMSAR site of the Black Bog, the SAC features of Mullan Woods & Drumlea Woods.'

This application violates the Water Framework Directive NI 2017, FODC Local Development Plan & FODC Biodiversity Strategy, by posing a threat to the ecological integrity of protected areas, causing adverse impacts on the hydrogeology and ecology, leading to habitat degradation, as well as changing water table levels, and impacting on surface water bodies and groundwater-dependent ecosystems.

Large-scale Water Abstraction & surface water impacts

Dalradian Gold want to abstract half a million gallons of water per day, every day of the year for 20 years from peatland -it is not stated whether they have 'water rights and access rights' over such a large area as would be required to meet their demand. Water abstraction would harm peatlands, groundwater, and surface water.

The FODC LDP calls for sustainable water resource management to ensure that water quality and quantity are maintained to support both human and ecological needs. Large-scale water abstraction, such as that proposed by Dalradian, would disrupt the hydrological balance, affecting not only water availability but also water quality due to changes in flow regimes and associated ecological impacts.

The Pollanroe Burn has been repeatedly found to have ecological value in surveys carried out by Ballinderry River Trust, Loughs Agency and others. Therefore, the proposal by Dalradian to discharge waste water from their treatment plant and discharge from their infrastructure site into the Pollanroe Burn during low flow conditions is unacceptable.

Furthermore, contrary to Dalradian's claims, the increases in flow conditions (average annual, monthly & low flow) have the potential to increase flood risks on the Owenreagh river and to result in out of banks flows, bank erosion and deterioration of ecological habitats.

This large scale water abstraction contravenes the environmental objectives of regulations 13(2)(b) and 13(5)(c) of the Water Environment (WFD) Regulations (NI) 2017 regarding sustainable water resource management, the prevention of deterioration of water status and achievement of good ecological status and chemical status of surface water bodies within the river basin.

Furthermore, abstraction from a priority habitat like peatland may impact the balance of the ecosystem, particularly the groundwater and surface water bodies, which could lead to a breach of regulations aimed at protecting groundwater and surface water bodies in line with the Water Framework Directive.

Groundwater impacts

Adverse impacts from dewatering of the mine (374,000 gallons 365 days per year for 20 years) would be shortages of groundwater resources, including the Pollanroe Burn & the unnamed watercourse, as well as on the Owenkillew and on the Owenreagh Rivers and in turn on the River Foyle itself. Another impact would be increased pollution through reduced dilution and damage to habitats dependent on the water bodies. The resulting changes to groundwater levels will impact massively & progressively on groundwater abstractions, surface water, streams, wells and the protected peatland. It is acknowledged that upland peat areas in stream valleys would be more susceptible to dewatering impacts from Dalradian's proposed works. Dalradian propose to send discharges from the Water Treatment plant (WTP), overflow from the Clean Water pond, underdrainage from the Dry Stack Facility, discharge from the management ponds upstream of WTP, non contact water from Eastern Division ditch as well as run off from surrounding fields and site into the Pollanroe Burn and state that the impact will not be significant. Such a statement rings hollow when Dalradian

don't propose to use water from either WTP or Clean Water pond for cooking, washing or showers & toilets!

Dalradian propose to cut off the head of the unnamed watercourse and divert its flow, claiming it is a low sensitivity watercourse but they also claim the same about the Pollanroe Burn which is untrue as has been discovered from surveys by The Loughs Agency. An independent survey has not been done on the unnamed watercourse. Regardless of its ecological sensitivity, the unnamed watercourse is a headwater of and hydrologically linked to the Foyle River basin, itself an Area of Special Scientific Interest (ASSI). Furthermore, FODC passed a motion in July 2021 supporting Rights of Nature. Local people support the right of the river to exist, thrive and regenerate (something which has been asserted in many other parts of the world).

Dalradian has failed to elaborate on the radius of influence of mine drainage, which is a very important issue both for legal and practical reasons. The drawdown of the water table as a result of Dalradian's proposal to mine circa 1,000m deep would transform the natural water conditions in the mine drainage area of influence. 'According to legal regulations this represents environmental damage which has to be eliminated or financially compensated'.¹

Dalradian's 2020 report says that groundwater levels will return to near natural conditions around 15 years post closure of the mine. Dalradian's earlier report from 2017 stated that it would take 100 years post closure. A credible explanation for the dramatic change has not been provided. This is in contravention of the Aarhus Convention.

The dewatering of the proposed underground mine would impact the aquatic environment causing shortages of supply, increased pollution, and damage to habitats dependent on the water body. It contravenes several sections of the Water Framework Directive, aimed at protecting and preserving water quality and ecosystems, including:

- i. Article 4
- ii. Article 7
- iii. Article 9
- iv. Annex VII

Impact on Peatlands

Most of the area from which Dalradian is applying to abstract water from is covered in peat, supporting blanket bog and wet heath habitats that are recognized as priority habitats in NI & are also listed under Annex 1 of EU Habitats Directive. Dewatering operations could lead to irreversible damage to these priority habitats which would be in contravention of FODC LDP, FODC Biodiversity Strategy, NI Peatland Strategy 2021-2040, Habitats Regulations, etc.

¹ The radius of influence of mine drainage – Definitions, methods of determination and practical issues Jacek Motyka, Kajetan d'Obyrn in Journal of Hydrology 613(2022) 128422
<https://doi.org/10.1016/j.jhydrol.2022.128422>

Peatlands act as a crucial carbon store.² Peat bogs are important as natural flood alleviation because of the amount of water they store. Dewatering them could have serious knock-on consequences for flash floods and land erosion/ destabilisation events. The old Irish name for the townland of Greencastle where Dalradian Gold propose to locate their goldmine infrastructure is “Sheskinshule” which means “moving bog”. This gives us a strong indication of the type of ground it is and the wisdom of our ancestors in knowing it for what it was.

Deficiencies in Rainfall Data

Dalradian’s underestimation of rainfall levels in the area raises doubts about the accuracy of their environmental impact assessments. It also undermines compliance with the Water Environment (WFD) Regulations (NI) 2017 in terms of data accuracy and transparency. Accurate, up to date rainfall data is essential in environmental impact assessment.

Climate Change concerns

In the intervening years since Dalradian submitted their planning application LA10/2017/1249/F the awareness of climate change globally has grown exponentially. Extracting significant amounts of water from peatlands, which are critical carbon sinks, would release stored carbon, thereby exacerbating climate change impacts and undermining the Climate Change Act NI 2022 as well as FODC LDP.

Peatlands play an important role as a most effective and efficient store both of water & of carbon.³ Abstraction of water from peatland would be contrary to The Climate Change Act 2022 as well as FODC Biodiversity Strategy & Action Plan 2022 – 27.

Water Quality Concerns

Dalradian propose to discharge a toxic mix of 24 heavy metals, fuels, acids etc into these “protected” rivers. The proposed discharge of heavy metals and toxins raises water quality and contamination risks as well as the discharge of abstracted mine water and sewage into the Pollanroe Burn. Water is abstracted from the river at Newtownstewart for the public reservoirs at Castlederg so it is of utmost importance that the river is not threatened by heavy metals, acid mine drainage and other contaminants from the goldmine. Likewise the aquatic life especially the critically endangered freshwater pearl mussels must be protected.

² Effects of Large-scale Water Abstraction on Peatlands - Water Resources Research, 2020
<https://doi.org/10.1016/j.jhydrol.2024.131735>

³ Strecker, A. 2024. Curraghinalt Project (Dalradian Gold) and breaches of environmental law, cultural heritage law, and human rights.
<https://drive.google.com/file/d/1ljGHBR-7b2iT11MJ2B1OSWGIwQ4qyd6q/view?usp=sharing>

Such discharges violate the Water Environment (WFD) Regulations NI 2017 standards for maintaining and improving water quality.

Compliance with Reservoir legislation

There are concerns over the scale of proposed ponds (8,856,000 gallons - 'clean water' pond & 8,547,000 gallons - West Pond) and Dalradian's claim for exemption from compliance with reservoir legislation appears incredulous. Ponds containing less than a quarter of those amounts (2,200,000 gallons) have to comply. Allowing Dalradian Gold exemptions from proper regulation would not just disregard the Precautionary Principle but would breach public policy and regulations. This approach is flawed and the PAC should recommend that the Applications be refused.

Water Supply Concerns

The risk to public water resources would be significant due to proposed abstraction because of the high level of demand from Dalradian. According to Dr Emerman, Dalradian have significantly underestimated their water requirement for a goldmining operation of this scale⁴ [See Appendix 1. Emerman, S.H, 2024. Evaluation of the Updated Environmental Statement for the Proposed Curraghinalt Gold Project, Co Tyrone.] and because the supply is already under stress. Furthermore, water is abstracted downstream at Newtownstewart for the Derg Reservoirs to provide a public water supply for 39,000 people and this proposed Abstraction could eventually impact on the supply of water there, as well as the quality. NIEA, in their 2019 report "Drinking Water Quality in NI" stresses the need to protect the catchment from which water is abstracted in order to improve the water quality & reduce potential contamination risks (Water Environment Regulations (NI) 2017). The Water Framework Directive requires that Drinking Water Protected Areas (DWPA) are identified and given the necessary protection with the aim of avoiding deterioration in their quality.... All groundwater bodies in Northern Ireland are designated as Drinking Water Protected Areas until Article 7 of WFD (2000/60/EC). This Abstraction would be in contravention of aforementioned regulations.

Protection of River morphology

There appears to be a complete lack of consideration for the interconnected watercourses and river systems in the area. Furthermore any scrutiny of Dalradian's baseline data appears seriously lacking. Dalradian's claims regarding both Burns having little ecological value are challenged by the empirical evidence of a number of surveys that confirm the presence of aquatic life in the Burns. This is supported by the independent surveys carried out both by

⁴ Emerman, S.H. 2024. Evaluation of the Updated Environmental Statement for the Proposed Curraghinalt Gold Project, Co Tyrone.

https://drive.google.com/file/d/1PvW_or1U88XMr_ZIpmqdgfGexywwdpuk/view?usp=sharing

Ballinderry Fisheries and the Loughs agency. Both Abstraction & Impoundment Applications and the proposed Discharges run the risk of impacting massively on the Burns' and rivers' morphology.

Water Framework Directive (WFD) NI 2017 requires river morphology to be protected to meet the ecological objectives of the Directive and for watercourses to maintain good standard. These abstractions are in contravention of WFD requirements on river morphology as well as ecological standards.

These applications mention the impacts on the Pollanroe Burn, the unnamed watercourse and to a lesser extent on the Owenreagh River but they do not acknowledge the fact that the Owenreagh joins the Owenkilleg a short distance away and that both these rivers and all the watercourses that flow into them are in fact the headwaters of the Foyle River System and have protected status.

Economic Impacts

The local economy, particularly tourism that depends on natural and cultural heritage, would be affected. Activities such as fishing, which rely on healthy river systems, would suffer, reducing tourist attraction to these areas. River Foyle and its tributaries are famous for salmon fishing. Small family farms would also be affected, where sheep and livestock depend on the streams for water during summer and during dry periods.

Water resources are essential for community health and well-being. Reduced water quality and quantity could impact public health and the overall quality of life in contravention of Human Rights.

A central theme of FODC LDP is to ensure that development does not compromise the ability of future generations to meet their own needs. The extraction and management of water resources in a manner that would deplete or degrade these resources conflicts with this theme and with the sustainable development principles in FODC LDP and in FODC's Biodiversity Strategy & Action Plan 2022 – 27.

Cumulative Impact Assessment

The Dalradian Gold Application fails to give adequate consideration to the cumulative impact of water abstraction and impoundment, within the wider impacts of the overall mining & on the entire ecosystem and watercourses. This is contrary to the requirements of the Water Framework Directive NI 2017 for holistic environmental impact assessments. In turn, neither have the impacts on the people who live in the area been considered, nor of the future generations.

Precautionary Principle

The precautionary principle has to be exercised on the basis of potential risks and adverse impacts.⁵ Significant doubts remain about the claims presented by Dalradian Gold. Thus, both applications for water abstraction and impoundment should be refused.

⁵ Office of Environmental Protection. 2023. The precautionary principle. <https://www.theoep.org.uk/sites/default/files/reports-files/Advice%20on%20the%20Northern%20Ireland%20Environmental%20Principles%20Policy%20Statement.pdf>

