Submission to the Transboundary Environmental Impact Assessment (EIA) Public Consultation – Dalradian Gold Mine Project development, located in County Tyrone on the southern edge of the Sperrin Mountains

Feminist Communities for Climate Justice

April 2025









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This submission has been prepared by *Feminist Communities for Climate Justice*, a joint project between the National Women's Council of Ireland and Community Work Ireland.

National Women's Council

The National Women's Council of Ireland (NWC) are the leading national representative organisation for women and women's groups in Ireland, founded in 1973. With nearly 200 members, the ambition of the National Women's Council is an Ireland where every woman enjoys true equality and no woman is left behind. NWC's current Strategic Plan No Woman Left Behind prioritises the need for NWC to bring a new focus on the climate crisis, its impact on women, the need for a Just Transition and the need for women and women's organisations to play a more central role in development of policies and solutions to meet the challenge of our climate crisis.

Community Work Ireland

Established in 1981 as the Community Workers Co-operative, Community Work Ireland (CWI) is a national organisation that promotes and supports community work as a means of addressing poverty, social exclusion and inequality and promoting human rights. CWI has a membership base of almost 900 community workers and community work organisations working with the most marginalised communities throughout the country. CWI has been involved in the area of climate justice since 2010.

Feminist Communities for Climate Justice

Feminist Communities for Climate Justice campaigns for climate justice that reflects feminist and community work values. We mobilise communities, ensuring social inclusion and equality are central to climate policies and programmes. This partnership between the National Women's Council (NWC) and Community Work Ireland (CWI) amplifies the voices of women and marginalised communities that are most impacted by climate change, building momentum in communities to engage, understand and influence climate policies. Feminist Communities for Climate Justice will develop a feminist and community work analysis, is delivering an accredited training programme in partnership with the Department of Applied Social Studies at Maynooth University, has established a Feminist Communities for Climate Justice National Network, and will develop resources and campaigns around feminist climate justice.



This is a submission from *Feminist Communities for Climate Justice* - a joint project between the National Women's Council of Ireland and Community Work Ireland - to the Transboundary Consultation called by the Irish Government in response to a request from the Department for Infrastructure in Northern Ireland¹. It concerns the following applications for a goldmine, 2 Discharge Consents, 2 Water Abstractions, 2 heavy duty powerline applications and a Road Abandonment application by Dalradian Gold in the Sperrins Area of Outstanding Natural Beauty in Co. Tyrone:

Curraghinalt Mine Project:

• Dalradian Gold Ltd LA10/2017/1249/F (PAC Ref: C005)

Curraghinalt 33Kv Project:

- Dalradian Gold Ltd LA10/2019/1386/F- NIE Networks (PAC Ref:C006)
- Dalradian Gold Ltd LA11/2019/1000/F NIE Networks (PAC Ref: C007)

Consent to discharge:

- Dalradian Gold Ltd TrC 080/20_1 DAERA (PAC Ref: 2021/WHR01)
- Dalradian Gold Ltd TrC 081/20_1 DAERA (PAC Ref: 2021/WHR02)

Water Abstraction and Impoundment

- Dalradian Gold Ltd AIL 2024/0008 NIEA (PAC Ref: 2024/WHR01)
- Dalradian Gold Ltd AIL 2024/0009 NIEA (PAC Ref: 2024/WHR02)

Dalradian Gold Ltd Road Abandonment Application (PAC Ref:DR001)

There are a number of concerns for human health, biodiversity (particularly as The Sperrin Mountains are one of the most legally protected landscapes in Europe) land, soil, water, air and climate, cultural heritage and landscape raised by Dalradian Gold's 'Curraghinalt Project', which would constitute the largest mining application in the history of the island. The aforementioned concerns would have ramifications for populations of both jurisdictions on the island, impacting social and environmental rights. They also undermine Sustainable Development Goals (SDGs) 3 (Good health and well-being), 6 (Sanitation and Water), 12 (Responsible consumption and production), 14 (Life below water), and 15 (Life on land).

¹ We would like to acknowledge and thank the <u>Environmental Justice Network of Ireland</u>, whose resource <u>Transboundary</u> <u>Environmental Justice: Goldmining in the Sperrin Mountains</u> (Strecker et al, 2025) helped shape this submission and covers the procedural justice issues regarding this consultation in great detail.



The concerns we would like to raise, which fall within the Environmental Impact Assessment (EIA) scope in both the Republic of Ireland (RoI) and Northern Ireland (NI), are as follows:

• Biodiversity, soil and water: The Sperrin Mountains as an area of high natural sensitivity

Protected sites are areas of vital importance for safeguarding the natural environment, building environmental resilience and for mitigating and adapting to climate change. The Sperrin Mountains are one of the most legally protected landscapes in Europe and a designated Area of Outstanding Natural Beauty (AONB) alongside several other national, European and international designations. These include recognition as a Ramsar site of international importance for active raised bog; being one of only two-hundred Dark Skies Observatories in the world; housing six Areas of Special Scientific Interest (ASSIs); recognition as an Area of Significant Archaeological Interest (ASAI); and housing the Owenkillew River Special Area of Conservation (SAC). The Owenkillew SAC designation is hydrologically linked to a SAC in the River Finn in Donegal, creating a transboundary concern for conservation.

Northern Ireland (NI) has been singled out as one of the world's most nature depleted countries², having lost 50% of its biodiversity when assessed against baselines established in the 1970s and 12% of species assessed in the country threatened with extinction. A report carried out by the Office for Environmental Protection (OEP)³ found that the two principal pressures causing biodiversity loss in NI are land use change and pollution, with one of its key recommendations singling out the damaging impact of extraction, consumption and disposal of raw materials on biodiversity. Despite the importance of protected sites, the implementation of protected site laws in Northern Ireland has not been subject to detailed, independent assessment for many years. The OEP published a report earlier this month on the review of implementation of laws for terrestrial and freshwater protected sites in Northern Ireland to help fill this gap⁴. The overall assessment is that protected site laws are not being well implemented, with a 10% decline of ASSIs in favourable condition from 2008.

The proposed development and activities of Dalradian's gold mine involve interactions with the aforementioned SAC and ASSIs which would have negative impacts for habitats and species in the Owenkillew and Owenreagh Rivers. The two Discharge Consent applications are to discharge

⁴ Office for Environmental Protection (2025) <u>OEP report on the review of implementation of laws for terrestrial and freshwater</u> protected sites in Northern Ireland.



² State of Nature Report - Northern Ireland (2023)

³ Office for Environmental Protection (2024) <u>OEP report on the drivers and pressures affecting nature in Northern Ireland | Office for Environmental Protection</u>

treated wastewater containing twenty-four metals, acids and flocculants. The application for Discharge into the Owenreagh River also includes treated sewage. Wastewater and sewage from the mine will ultimately discharge into these rivers, with consequences for the Native Atlantic Salmon and freshwater pearl mussels - the latter of which is Ireland's only critically endangered species, and the former being a protected species. Otters and brown trout also have habitats in these rivers. Granting of the Discharge Consents would have fatal impacts for aquatic life in the Owenkillew and Owenreagh Rivers and impacts on the water quality and aquatic life throughout the Foyle River Basin due to cumulative build-up of heavy metals in the river system.

Additionally, Dalradian's Statement of Case in October 2024 states that for seven years post closure, there would be a discharge of 4,400 gallons per day from their adit into the Owenkillew River, via the Curraghinalt Burn. After the initial seven years, this discharge would increase to 176,000 gallons per day indefinitely. This discharge will likely be Acid Mine Drainage (AMD) - when rock extracted from the mine contains sulphides which produce sulphuric acid when exposed to air and water - which would join the contaminated waste flowing from the Filtered Tailings Stack. Both of these would pervade the entire Foyle river system, putting all aquatic life and their habitats at risk. AMD is a permanent problem, which continues in perpetuity, poisoning land and water. Research shows that mines in Spain operating from Roman times are still leaking this drainage⁵. Water contaminated with AMD, when it evaporates to form rain clouds as part of the hydrological cycle, will lead to acid rain, with larger consequences for biodiversity.

The proposed abstraction and dewatering processes would disrupt the habitats of local biodiversity and damage crucial habitats for species reliant on stable water conditions, particularly those listed under the EU Habitats Directive. Changes in water flow, availability and quality negatively impact biodiversity, especially for species sensitive to changes in their aquatic environment, such as the critically endangered freshwater pearl mussels, salmon, trout and brown otters. The project would contravene the Water Framework Directive by failing to protect river morphology and maintain good ecological standards. The project would also contravene the Habitats Regulations NI (1995).

Dalradian Gold proposes to extract thousands of tons of rock through the use of explosives twice daily for twenty-five years in order to facilitate the chemical extraction of gold ore. Dalradian proposes to store the waste in a Dry Stack Facility, standing at fifty-four metres in height. This facility is also known as a "Filtered Tailings Stack" in the industry. Failure of such a facility would result in toxic waste sliding down the mountainside and into the waterways surrounding the mountain, following the path of the rivers flowing into Lough Foyle and on to the Irish Sea. Failure of

⁵ Olías, M. and Nieto, J. (2015). Background Conditions and Mining Pollution throughout History in the Río Tinto (SW Spain). Environments (Basel, Switzerland), 2(3), pp. 295–316.



tailings dams is not infrequent, due to the volume and type of waste material stored - rainfall also generates weight, increasing the water content of the filtered tailings stack, and the Sperrins area has the highest measurements of annual rainfall in NI at an annual average of 1600mm. A report by the Church of England⁶ showed that more than a third of all tailings dams worldwide are at high risk of causing catastrophic damage to nearby communities if they fail - the findings of this report relied on companies' disclosures about their dams holding tailings, with a number of mines not providing this information.

The failure of these facilities is devastating and often fatal - in 2019 in Brumadinho, Brazil the collapse of a dam killed 259 (later amended to 270) people. The disaster also destroyed a number of villages as well as agricultural areas. Worryingly, the collapse of the tailings stack of the Turmalina Mine in Brazil in 2024⁷ shares the same design as Dalradian's proposed Curraghinalt project⁸.

Dalradian's proposed gold mine would put a number of bird species with habitats in the Sperrin Mountains at risk, such as Whooper Swans, Peregrine Falcons and Chough and a number of migrating bird species such as Greylag Geese and Snipe. A report from Northern Ireland Electricity (NIE) regarding the Dalradian project's heavy-duty powerlines notes that felling and cutting of trees would be required along a significant proportion of the project's proposed to ensure the maintenance of a safe ten-metre-wide wayleave. Such activity would disturb wildlife habitats and result in more threats to biodiversity in a country that already has one of the highest rates of nature depletion in the world.

Given the special nature and designations of the sites in question, it is also concerning that no independent Habitats Regulations Assessments (HRA) have been completed - an appropriate assessment required for SACs under the Habitats Directive. SACs require appropriate assessments to be carried out on any plan or project likely to have a significant effect on the integrity of the site's conservation objectives. Only on the conclusions of such an assessment can competent national authorities agree to the plan or project going ahead - having ascertained that it will *not* adversely affect the integrity of the site concerned. Of the eight applications made by Dalradian (listed in the opening of this submission), only two - the heavy-duty powerline applications - received a HRA.

• Impacts on Human Health

⁶ Warburton et al (2020) <u>A global look at high-risk tailings dams</u>, Reuters.

⁷ Brazilian authorities shut down Jaguar mine after tailings slide - MINING.COM

⁸ Petley, D. (2024) The 7 December 2024 mine waste landslide at Turmalina Mine

In July 2022, the United Nations (UN) General Assembly recognised that a clean, healthy, and sustainable environment is a human right. This recognition followed the UN Human Rights Council resolution 48/13 which acknowledged the right in October 2021. The substantive rights of the right to a healthy environment include clean air; healthy ecosystems and biodiversity; safe and sufficient water; and a non-toxic environment⁹.

The aforementioned risks to biodiversity and waterways surrounding the Sperrin Mountains have implications for human health and would infringe on the human right to a healthy environment. There is increasing recognition that biodiversity is vital to the health of the planet and that humans are part of biodiversity rather than separate from it¹⁰; and growing awareness of the importance of biodiversity for human health and wellbeing¹¹ and for social justice. Those already disadvantaged and marginalised in society are most likely to be adversely affected by biodiversity loss¹². Rol's *Health Service Executive (HSE) Climate Action Strategy 2023-2050* claims that 'poor water quality, noise pollution, radiation, chemical pollution, and air pollution cause adverse impacts on human physical and mental health'¹³. Polluted air and water have adverse impacts on male and female reproductive health. Environmental pollutants have been implicated as a contributing factor to the ability to both conceive and maintain pregnancy. Exposure to air pollution has been linked to reduced sperm quality, ovarian dysfunction, and poorer Assisted Reproductive Technology (ART) and In vitro fertilisation (IVF) outcomes.

Dalradian has applied to use 3.5 million litres of diesel onsite every year for twenty-five years. High levels of fumes from diesel emissions are poisonous, leading to increased rates of lung cancer, other heart and lung diseases and premature death. Acute effects of exposure include irritation of the nose and eyes, changes in lung function, respiratory changes, headaches, fatigue and nausea. Chronic exposures are associated with cough and lung function decrements¹⁴. Children are particularly vulnerable because their respiratory systems are still developing and their breathing rate is quicker than that of adults - a great concern considering the proposed mine's proximity to Our Lady of Lourdes Primary School and St. Patrick's Gaelic Football Club. Exposure to diesel

¹⁴ Sydbom, A, and Blomberg, A. (2001) 'Health effects of diesel exhaust emissions', *European Respiratory Journal* 17(4): 733-746.



⁹ United Nations Human Rights: Office of the High Commissioner (2023) <u>What is the Right to a Healthy Environment?</u> Information Note

¹⁰ Kabora, T., (2021) 'Seeing Humans as part of biodiversity and part of the solution', *News Leverhulme Centre for Anthropocene Biodiversity*. University of York: Leverhulme Centre for Anthropocene Biodiversity.

¹¹ Report of Citizens' Assembly on Loss of Biodiversity (2023) Dublin: The Citizens Assembly. <u>https://citizensassembly.ie/wp-content/uploads/ReportonBiodiversityLoss.pdf</u>

¹² Roe, D., (2019) 'Biodiversity loss – More than an environmental emergency'. *The Lancet Planetary Health*, 3(7), pp.287-289. DOI: <u>https://doi.org/10.1016/S2542-5196(19)30113-5</u>

¹³ Health Service Executive (2023). *Climate Action Strategy 2023-2050*, Ireland: HSE. <u>https://www.hse.ie/eng/about/who/healthbusinessservices/national-health-sustainability-office/climate-change-and-health/hse-climate-action-strategy-2023-50.pdf</u> (p. 10)

exhaust pollutants in adulthood also correlate with abnormal sperm parameters, chromosome numbers, and DNA fragmentation¹⁵.

Dalradian state that their proposed Dry Stack Tailings facility would need to be sprayed with water to prevent dust containing heavy metals from blowing in the wind. When dry, this toxic dust could be blown across both jurisdictions on the island of Ireland. A study in Finland found the fine dust -2.5 particulate matter containing arsenic and mercury - from a goldmine at Kittilä on the leaves of trees sixty kilometres from the site. This dust could enter the respiratory systems of those who inhale it, causing respiratory diseases and cancers. Children, as aforementioned, would be particularly vulnerable to ill health impacts. Dalradian's proposed site is approximately thirty kilometres from parts of Donegal, meaning the carrying of toxic dust is a transboundary issue to health.

The heavy metals to be discharged into the Owenkillew River and Owenreagh River through Dalradian's proposed activities include cadmium, arsenic, lead, chromium and mercury. Polluted water adversely impacts reproductive health. Pollutants like arsenic have been linked to pregnancy complications like miscarriage, premature birth, and birth defects.

Cultural Heritage

In October 2016, the Human Rights Council adopted a resolution calling upon all States to respect, promote and protect the right of all people to take part in cultural life, including the ability to access and enjoy cultural heritage, and to take relevant actions to achieve this. This initiative followed a cross-regional statement made to the Human Rights Council in March 2016, condemning the intentional destruction of cultural heritage and calling for identification of best practices for its prevention. Resolution 49/7, *Cultural rights and the protection of cultural heritage*, was adopted unanimously by the Human Rights Council in March 2022¹⁶.

The Sperrin Mountains are an area rich in cultural heritage, recognised in international treaties such as the UNESCO 1972 World Heritage Convention ("Cultural Landscapes"), the 2003 UNESCO Convention on the Safeguarding of the Intangible Cultural Heritage (Article 2), and the 2000 Council of Europe Landscape Convention (Article 1). There is a wealth of archaeological sites in the area - more than one hundred recorded to date by the Historic

¹⁶ United Nations Human Rights: Office of the High Commissioner (2023) <u>Cultural rights and the protection of cultural heritage</u> <u>OHCHR</u>



¹⁵ European Society of Human Reproduction and Embryology (2024) Factsheet on air pollution, climate change and reproductive health

Monuments Unit of the Northern Ireland Environment Agency in an eight-mile radius - dating back to the Neolithic and Bronze Ages, including numerous raths¹⁷ along valleys and historic field patterns including ladder fields and traces of former open-field systems. One site of note in the designated ASAI is the six-thousand-year-old Beaghmore Stone Circles - one of the largest and most complex sites of its kind - as well as the Aghascrebagh Ogham Stone.

Dalradian's proposed mine site cuts across the historic Green Road - the road that Hugh O'Neill travelled in 1607 during the Flight of the Earls according to local tradition - and the proposed road abandonment plan is to abandon a road that is connected to this Green Road. Also included within the site of the proposed gold mine is a Mass Rock dating back to Penal times (1691 - 1760), when the religious rights of Catholics were denied and had to be exercised in secret.

Dalradian's plans to remove seventy-four acres of peatland to build their infrastructure, alongside industrial activities such as the aforementioned use of explosives twice daily for at least the next two decades. would shake and destroy sub-surface archaeological deposits. The wider area is abundantly rich in archaeological sites, which are all part of the cultural heritage of the area.

Economic Impacts

Dalradian have argued that their proposed mine would bring significant economic development to Northern Ireland, claiming that the project will boost the economy, provide jobs, and be Europe's first 'carbon neutral'¹⁸ mine. However, there are concerns for already existing economic activity in the area such as fishing, agriculture and tourism.

The aforementioned concerns for the waterways and aquatic life caused by Daldradian's proposed activities would have knock-on impacts for salmon fishing. The tributaries of the Foyle River basin are world famous for salmon fishing - the livelihoods of fisher people could be negatively impacted on both sides of the border. The applications for heavy duty powerlines would cross several rivers, either via directional drilling or open channel cutting, which could impact water quality and disrupt aquatic ecosystems, creating a knock-on impact on the Foyle of which they are tributaries and headwater. The aforementioned abstraction and dewatering processes would also pose significant risks to Lough Foyle's expansive shellfish aquaculture industry.



¹⁷ A rath (also known as a ringfort) is a strong circular earthen wall forming an enclosure and serving as a fort and residence for a tribal chief

¹⁸ Advertising Standards Authority ruling on Dalradian Gold Ltd (2021)

There are also impacts for agriculture in the area - if pollutants get into water abstraction wells and mains used to feed livestock on surrounding farms within the catchment area, there is a concern that this will harm or kill the animals. The twice daily explosions could create stress in livestock. The toxic dust from the proposed Dry Stack Facility can be carried far from its origin site to be inhaled by livestock or settle on agricultural soils. The risk of failure in this facility would also destroy surrounding agricultural lands, as occurred in the collapse of the tailings dam at Brumadinho. All of these risks will affect the livelihoods of farmers and the ability of the locality to rely on their produce - such as beef, dairy, chickens, eggs and crops.

As an AONB, the Sperrins attracts tourists and visitors for walking or hiking, birdwatching, cultural history and sightseeing. The Tyrone & Sperrins region was more likely than most other regions in NI to be rated as 'excellent' in overall terms by tourists, according to data collated by Tourism NI, and 71% of visitors are highly likely to recommend the destination to their friends and relatives¹⁹. The increased provision of overnight accommodation in the area illustrates the importance and economic contribution of tourism.

The Times newspaper named the Sperrins as one of the UK's 'most underrated' beauty spots²⁰, and recently (April 19th 2024) RTE 1 showcased Gortin Glen Forest Park during episode three of the RTE *Tracks & Trails* series. Taking advantage of the area's scenery, separate scenic driving and cycle routes have been developed and are sign-posted and mapped. Many walking and cycle trails have also been developed, with walking festivals being a regular feature throughout the year including night walks held in Davagh International Dark Sky Park. Crockanboy Hill is featured as an ideal walking venue.

Davagh International Dark Sky Park, developed by Mid Ulster District Council and OM Observatory in collaboration with the International Dark Sky Association, is one of only two-hundred Dark Skies Observatories in the world, creating favourable conditions for stargazing. Constructing a multi-story above ground infrastructure, complete with round-the-clock lighting, would threaten the status of the Davagh International Dark Sky Park.

A recent addition, the Sperrin Sculpture Trail is a driving trail which contains three giant sculptures located at separate destinations within the Sperrins. *Nowanois: The Storytellers*, the first of the sculptures, is located in the Glenelly Valley - the drive through the Glenelly Valley has been featured in National Geographic's top 101 scenic drives in the world²¹. *Daragh: The Guardian* is located at the top of Mullaghcarn Mountain in the Gortin Glens - this sculpture would look down

¹⁹ Tourism NI - Destination Tyrone & the Sperrins region

²⁰ Thackray, L. (2024) 'Seven of the UK's most underrated beauty spots', The Times.

²¹ Sperrin Mountains in National Geographic's top 101 list - BBC News

upon the proposed mining site. The last of the sculptures, *Ceoldan: The Stargazer* is located within Davagh Dark Sky Park, which is already threatened by proposed infrastructure required for Dalradian's mine.

The heavy-duty powerlines that would accompany the mine would result in visual and landscape impacts - 322 poles being erected eleven to twenty metres in height and a ten metre clearance around them; in addition to the fifty-four metre Dry Stack Facility - going through the Sperrins AONB. Visually, these would have a negative impact on a landscape that is renowned for its beauty.

Concluding Remarks

There is a question of whether a Transboundary Consultation can actually be completed in such a case when there is no agreement about where the boundary is. Both the Irish Government and Crown Estate of England claim ownership of Lough Foyle, a dispute which has been ongoing for over one hundred years since partition in 1922. This unique situation, to all intents and purposes, makes it impossible to submit a complete submission until the matter of ownership is resolved and the boundary is clearly marked.

Mining impacts span vast scales of time and space and pollution can extend to hundreds of kilometres downstream from mining operations. Mining has proven capacity to harm aquatic ecosystems, alter water and sediment chemistry, water cycling, physical habitat, and the health of animals and humans. This is of particular significance in ecological terms on the island of Ireland. The reality is that salmon don't stop swimming at the Border, birds and insects don't stop flying at the Border, and heavy metals such as arsenic, lead and mercury don't stop mid-stream at the Border. In other words, Ireland is "*a single biogeographic unit with shared landscapes, water sources, flora and fauna*."²²

When one considers this issue in addition to all of the above concerns for biodiversity, soil, water, human health, cultural heritage and economic impacts, the precautionary principle must be applied and Dalradian's applications refused in their entirety.

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²² EJNI research report on "Linking the Irish Environment: Final Report"