

Representation Detail (May/June 2024)	Response number on response spreadsheet (May/June 2024)
<p>Insufficient and Outdated Environmental Information: The supporting environmental data for the Dalradian project, being approximately five years old in some respects, does not reflect the current state of the local ecosystems or the legislative changes affecting environmental governance in Northern Ireland. Updated and comprehensive environmental data are critical for an accurate assessment under the Environment Act 2021 and the Climate Change Act (Northern Ireland) 2022.</p>	<p>1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 33; 34; 35; 42; 44; 54; 55; 59; 64; 69; 116; 144; 212; 220; 221; 229; 238; 242; 243; 244; 245; 247; 261; 267; 269; 271; 318; 325; 330; 333; 334; 335; 336; 337; 339; 338; 340; 341; 363; 364; 377; 270;274;219; 358</p>
<p>The document's reliance on historical data and models, such as the LowFlows2 software and historical rainfall data from Lough Fea, introduces significant uncertainty. These methods, while mining industry-standard, have acknowledged limitations and uncertainties, particularly for small catchments (<25 km²) due to the very limited number of gauging stations. This would lead to inaccurate flow predictions for the Pollanroe Burn and Owenreagh River. This inaccuracy will be magnified due to the topography of the local area within the Sperrin Mountains and the known effects of microclimates that are experiences in this area due to its topography which has not been included in the reports.</p>	<p>338;</p>

<p>Compliance with New Legislation: With the introduction of the Environment Act 2021 and subsequent legislative measures, new frameworks have been established that dictate stringent oversight of environmental impacts and enforce robust public consultation processes. The pace at which the hearing for these applications is being proposed seems to undermine the ability of regulatory bodies to perform thorough assessments aligned with these frameworks.</p>	<p>1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 33; 34; 35; 42; 44; 54; 55; 59; 64; 69; 116; 144; 212; 220; 221; 229; 238; 242; 243; 244; 245; 247; 261; 267; 269; 271; 325; 330; 333; 334; 335; 336; 337; 339; 338; 340; 341; 363; 364; 377; 270;274;219;318; 327; 353,358,378</p>
<p>The reliance on linear interpolation of climate change impacts based on UKCP18 scenarios oversimplifies the complex and potentially non-linear nature of climate change. This approach may lead to significant underestimations or overestimations of future water availability and flow rates, thereby failing to comply with the precautionary measures required by recent legislative changes.</p>	<p>338;</p>

<p>Application of the Precautionary Principle: Given the potential significant impacts on local ecosystems and the broader environment, and in the absence of comprehensive, up-to-date environmental data, the precautionary principle must be rigorously applied. This principle is essential to prevent irreversible environmental damage from activities whose impacts are not fully understood.</p>	<p>1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 33; 34; 35; 42; 44; 54; 55; 59; 64; 69; 116; 144; 212; 220; 221; 229; 238; 242; 243; 244; 245; 247; 261; 267; 269; 271; 325; 330; 333; 334; 335; 336; 337; 339; 340; 341; 363; 364; 377; 338;270;274;219;318</p>
<p>The water balance model's assumption that mine water ponds will maintain sufficient freeboard to accommodate a 1 in 1000-year storm event depends heavily on the operational efficiency of the water treatment plant. Any operational failure or reduced efficiency could compromise the flood storage capacity, leading to potential overtopping and significant environmental impacts and possibly the loss of life due to the proximity of local homes down hill from this proposal and a local road which is used by a significant number of motorists every day and also the proposal of a new road for the public directly beside and down hill of the impoundment locations.</p>	<p>338;</p>

Potential Cross-Border Environmental Impacts: The project may have transboundary environmental effects, necessitating thorough bi-national consultations to comprehensively address potential impacts on shared natural resources and ecosystems.

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The document highlights significant variability and challenges in measuring flow at gauging stations like FL13 due to changing bed forms and the presence of a culvert. These measurement difficulties can lead to inaccuracies in the baseline data, affecting the reliability of the entire water balance model. Monthly flow differences between baseline and operational phases indicate significant changes in flow rates during summer months, with flow rates in June and July showing a considerable increase in percentage difference due to operations. These changes could impact the local aquatic ecosystems, particularly during dry periods when water availability is critical for maintaining ecological balance.

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<p>Given these concerns, I urge the Department to reconsider the current processing timeline and allow for a more extensive review period that accommodates detailed public and expert consultations. It is crucial that all evaluations are conducted transparently, with due consideration of the latest environmental data and legal standards.</p>	<p>1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 33; 34; 35; 42; 44; 54; 55; 59; 64; 69; 116; 144; 212; 220; 221; 229; 238; 242; 243; 244; 245; 247; 261; 267; 269; 271; 325; 330; 333; 334; 335; 336; 337; 338; 339; 340; 341; 363; 364; 377; 270;274;219</p>
<p>The project may have transboundary environmental effects, necessitating thorough bi-national consultations to comprehensively address potential impacts on shared natural resources and ecosystems. The document does not sufficiently address how potential changes in water flow and quality due to mining operations could affect ecosystems downstream, particularly during dry periods when water availability is critical.</p> <p>Increased average flows in the Pollanroe Burn are expected to result in increased flows in the Owenreagh River downstream of the confluence with the burn. Flows in the Owenreagh River are expected to increase by 0.9-1% for annual average flows when compared to baseline conditions, which may seem minimal but could have cumulative impacts on the river's ecology and hydrology.</p>	<p>338;</p>

The assumption that the water treatment plant will always function at peak efficiency during extreme weather events is optimistic. Real-world operational challenges, maintenance issues, or unexpected failures could significantly impact the system's ability to manage flood waters, leading to environmental risks.

The water balance model's scenarios are based on stochastic inputs and Monte Carlo simulations, which provide probabilistic outcomes. While this approach is robust, it is essential to recognize that the predictions are still based on assumptions and modelled scenarios that may not fully capture the complexities of real-world conditions, it should also be noted that there is no evidence of the number of data points and the actual data which was feed into the model, which would have immense bearings on the outcome of the model.

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These two Applications are an integral part of Dalradian Gold's Planning Application LA10/2017/1249/F and cannot be treated in isolation from it.

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<p>As someone who grew up in the Sperrins and who has many close family and relatives who still live and farm there, including in the immediate area which is the subject of this application, I strongly object to all Dalradian proposals to mine and damage the Sperrins. I support the efforts of local people to oppose planning and related applications that, if approved, will cause irrevocable environmental and other damage to our countryside.</p>	<p>311;</p>
<p>I am concerned that there's a whiff of project-splitting here - these two Applications are an integral part of Dalradian Gold's Planning Application LA10/2017/1249/F and cannot be treated in isolation from it.</p>	<p>185;</p>
<p>In 2019, The Irish Times reported that, "The EPA described as "of very significant concern" a finding that the number of "pristine river sites" had fallen to 20, which it said was at "an all-time low". "The report notes a "dramatic loss" of sites with what is deemed "best of the best" river water. Some 13.4 per cent of sites were pristine in the period 1987-1990 compared with just 0.7 per cent of sites examined from 2016 to last year. " https://www.irishtimes.com/news/environment/just-20-of-ireland-s-rivers-are-pristine-down-from-500-in-1980s-1.4110018 In Northern Ireland, Northern Ireland Water Framework Directive Statistics Report, released in 2021, when the presence of uPBT substances were included as part of the chemical assessment, no river, lake, transitional or coastal water bodies achieved good or high overall status. https://www.daera-ni.gov.uk/news/northern-ireland-water-framework-directive-statistics-report-2021-released This must not be allowed to continue and must be urgently addressed. No further degradation of the the water bodies on this island, by industry or indeed by state bodies or at domestic level, can be permitted.</p>	<p>206;</p>
<p>Application LA10/2017/1249/F and cannot be treated in isolation from it. We represent some seven thousand anglers who depend on good water quality and ecosystem health, this project threatens all of these and the entire fishery of the Foyle system and the viability of our community clubs across the catchment.</p>	<p>241;</p>

<p>An Taisce, the National Trust for Ireland and a prescribed body in the Republic of Ireland's planning system, wishes to make the following submission on Dalradian's two new Water Abstraction & Impoundment Applications, AIL 2024 0003 & AIL 2024 0004, as advertised in the Ulster Herald on 2nd May 2024. These two Applications are an integral part of Dalradian Gold's Planning Application LA10/2017/1249/F and cannot be treated in isolation from it.</p>	<p>211</p>
<p>It is essential that an holistic approach is taken to the consideration of the various applications that are being made relating to the same overall project. There is a real danger that the overall picture could be lost in responding to a series of individual applications that isolate certain aspects of Dalradian's proposal. In particular it would seem that the impact of discharge should be considered alongside 'abstraction and impoundment'.</p> <p>It is in the interest of the applicant to divert attention from the negative impacts of their proposal, and to attempt to swamp the relevant authorities and potential objectors, with spurious submissions.</p> <p>It is not in the interest of the applicant to encourage a clear assessment of the overall picture, or to accurately represent the damage that would be done to the environment of the Sperrins, and beyond, if their proposal were to go ahead. It falls to the relevant authorities of Northern Ireland to ensure that an holistic view is taken, and that proper value and protection is given to our environment, including our air and water and to the health of our population. This should be a minimum standard.</p> <p>In recent years there has been pressure on domestic water supply, involving restrictions placed on domestic water usage and periods when the water supply has been 'interrupted'. As a local population, we were told on these occasions that we simply do not have sufficient water to meet demand during or after the periods of dry weather which have become more common. How then, could permission be given for Dalradian to take so much of our water? Water is essential for life, and for quality of life. Water shortages have a particularly adverse affect on food production, on our farmers and growers, and disproportionately affect vulnerable members of our families, including babies, the sick and the elderly.</p>	<p>181;</p>

<p>Dalradian's claims that their leaching agent is safe are suspect given the fact the specific agent they are to be used. If they are using Thiosulphate although it has a lower toxicity than cyanide it is still life threatening at 20 mg/100 mL, and requires vastly more reagent compared with cyanide. This questions how the still toxic consumed reagents and tailings are to be stored 'thiosulfate leaching conditions reported in the literature are severe with high reagent consumption' If Dalradian intend to use another novel leaching agent a study must be done into its impact. From Dalradian's 2016 literature "There is more cyanide in a handful of almonds than there is in the solution at the end of our process." That's not zero cyanide. Clarity must be achieved here. Curraghinalt's average elevation is 229m Omagh's is 76m there is the very real prospect of run-off from tailings piles being washed into the town, and this is irreversible.</p>	<p>287</p>
<p>Curraghinalt represents a 'High quality deposit ... with average grades over 10g/t... A gold resource in excess of 4 million ounces' Dalradian plans to extract 3.5M ounces of gold plus (£5.6 bn) + £15mil silver + £98m copper over 20/25 yrs. That's only one mine of many planned. The license to extract is a pittance compared to the value of the gold. We have virtually no mining industry, so Dalradian with connections in Orion Resource Partners (the US investment company which owns Dalradian) will be paying their own experts. At best the a few local heavy plant operators will get a few year's pay. Dalradian are to pay '£12m in taxes per annum.' This is an embarrassingly poor deal for the nation. Dalradian have no economic motivation to follow up on any of their claims, any claims to 'minimize emissions and environmental impact' figures and projections are questionable at best, aren't legally binding and even if they were Dalradian could easily pay any damages and still walk away with billions in profit.</p>	<p>287</p>
<p>Fermanagh and Omagh District Council Climate Change and Sustainable Development Strategy 2020 - 2030 state goals to reduce carbon emissions yet "Concentrate from Curraghinalt is shipped overseas for final processing into gold, silver and copper." The heavy plant, shipping and processing, as well as the additional strain on electricity generation which has a carbon cost (only 45% of power produced in NI renewable). Dalradian's enterprise has enormous carbon cost and is in direct contradiction to any national carbon reducing or net zero goals.</p> <p>If approved this sets the precedent for the wholesale exploitation of the island's fabric. Mining will expand to the detriment of our identity the floodgates for the wholesale extraction of wealth for the profit of an external entity, what binding guarantee do the public have that every and all of these potential mines will be fault free and safe?</p>	<p>287</p>

Any claim gold mining is essential for green energy transition is patently spin, 50% of gold mined is used for jewellery.

The eyesore caused by the industry, the power lines snaking across the Sperrins subverts the area as an attractive tourist destination, and would therefore cause a loss in income associated with this.

Additionally, Dalradian's push to extract the nation's gold is a demoralising reminder of a faceless corporation extracting the wealth which has existed under our feet from time immemorial will likely have a psychological impact on conscientious citizens, a helplessness and symbolic of a move to a dystopian wasteland.

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It is essential to protect the sensitive environmental setting of this whole project: the Sperrins AONB, Owenkillesh SAC, Owenreagh ASSI, River Foyle & tributaries SAC & ASSI, and the nearby Ramsar site among others.

These areas are all crucial for biodiversity and ecological balance.

Any risk/damage to them is in contravention of Fermanagh Omagh Local Development Plan (2030), Water Framework Directives NI (2015 & 2017), Habitats Regulations (1995), the Owenkillesh River Management Plans (2013 & 2023), etc.

The proposal to evade reservoir legislation is unacceptable as it would compromise safety and reduce environmental oversight.

Dalradian's proposed "pond" containing almost 9 million gallons of "water" must be governed by reservoir legislation.

Normally a reservoir of 2.2 million gallons must comply with the regulations.

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The proposed abstraction and discharge of water would lead to reductions in water quantity and quality in nearby streams and rivers, affecting aquatic life.

The abstraction would change the natural flow regimes of the local water bodies, especially the Pollanroe Burn & Owenreagh River, affecting aquatic habitats and species that depend on specific flow conditions, particularly the freshwater pearl mussels, which are Ireland's only globally endangered species.

There is unacceptable vagueness in SRK report where it says water will be directed to – how & by what means is water “directed”?

There is a lack of clarity regarding the extent and impact of water abstraction, especially in terms of the area affected.

Also, how is “contact & non-contact water” to be managed “to maintain separation”?

The importance of peatlands for carbon storage and natural flood management cannot be ignored especially in these times of Climate Change.

Disruption of peatland by abstracting almost half a million gallons of water per day every day of the year for maybe 20 years would lead to drying out of the bog, carbon loss, alter the waterways, increase flood risks and ecological damage.

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The site of the proposed goldmine necessitating the water abstraction & impoundment applications is at the centre of a pre-historic landscape. This landscape has many scheduled archaeological monuments, some of which are within the local designated as an Areas of Special Archaeological Interest. It is essential that the ground-water balance which sustains the sites and supports the ground level foundations of these pre-historic monuments is maintained. The long-term abstraction of large volumes of water is totally inappropriate in this pre-historic landscape.

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The importance of peatlands for carbon storage and natural flood management cannot be ignored - especially in these times of Climate Change.

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Disruption of peatland by abstracting almost half a million gallons of water per day every day of the year for maybe 20 years would lead to drying out of the bog (contrary to Gahan & Long's opinion 2022), carbon loss, alter the waterways, increase flood risks and ecological damage.

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Furthermore, given the amount of water proposed to be abstracted from the peatland, it seems impossible that sub-surface archaeological deposits would survive within the infrastructure site. Dalradian's plans to remove 74 acres of peatland to build their infrastructure as well as their industrial activities including vibrations & blasting twice a day, every day of the year for 20 years would shake and destroy any sub-surface archaeological deposits . The wider area is abundantly rich in archaeological sites, which are part of our cultural heritage, and any risk or devastation to it would be an attack on our human rights.)

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<p>The water supply for each person must be sufficient and continuous for personal and domestic uses. These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene. According to the World Health Organization (WHO), between 50 and 100 litres of water per person per day are needed to ensure that most basic needs are met, and few health concerns arise.</p> <p>The water required for each personal or domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health. Measures of drinking-water safety are usually defined by national and/or local standards for drinking-water quality. The World Health Organization (WHO) Guidelines for drinking-water quality provide a basis for the development of national standards that, if properly implemented, will ensure the safety of drinking-water</p>	<p>360; 365;</p>
<p>The abstraction activities would change groundwater levels due to dewatering of the mine, and negatively impact wells and groundwater-fed natural habitats.</p> <p>The vast amounts of water abstraction would lead to a significant reduction in groundwater levels, affecting local water availability and quality.</p> <p>All groundwater bodies in NI are designated as Drinking Water Protected Areas under Art. 7 of EFD (20060/EC).</p> <p>These Applications would jeopardise both quantity and quality of public water in a geographical location already identified as high risk.</p> <p>Changes in groundwater levels risks mobilising and spreading contaminants, affecting local water quality and ecosystems.</p> <p>The attendant environmental risks are unreasonably downplayed by Dalradian and their consultants.</p> <p>The incorrect rainfall data provided could mislead regulatory assessments.</p> <p>Up to date data is a must and today's knowledge on Climate Change used in assessing the applications.</p>	<p>27; 28; 29; 30; 31; 32; 36; 37; 38; 39; 40; 41; 43; 45; 46; 47; 48; 49; 50; 51; 52; 53; 56; 57; 58; 60; 61; 63; 65; 66; 67; 70; 71; 72; 73; 74; 75; 76; 77; 78; 79; 80; 81; 82; 83; 84; 85; 88; 89; 90; 91; 92; 93; 94; 95; 96; 97; 98; 102; 103; 104; 105; 106; 107; 108; 109; 110; 111; 112; 113; 114; 117; 118; 119; 120; 121; 122; 123; 124; 125; 126; 127; 128; 129; 130; 131; 132; 133; 134; 136; 137; 138; 139; 140; 141; 143; 145; 148; 149; 150; 151; 153; 153; 154; 155; 156; 157; 158; 160; 161; 164; 165; 166; 167; 168; 169; 171; 172; 173; 175; 176; 177; 178; 179; 180; 181; 182; 183;</p>

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<p>We rely on ground water for providing water to livestock in sheds during winter and spring and also in the fields all year round.</p>	<p>45; 46 and 47:</p>
<p>I am really concerned about the high risk of arsenic leaching into the groundwater systems from the mining process.</p>	<p>69;</p>

The abstraction and dewatering processes would disrupt the habitats of local flora and fauna 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, would negatively impact biodiversity, especially for species sensitive to changes in their aquatic environment, such as the freshwater pearl mussels, salmon, trout, & 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).

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<p>There would be a risk of environmental degradation especially during the construction phase, which would increase run-off and sedimentation, negatively affecting aquatic life in the tributaries of the Foyle River basin which are world famous for salmon fishing.</p>	<p>211</p>

Increased water use for the project would reduce the availability of water for local communities and family farms, particularly during dry periods.

The competition over water resources would lead to additional conflict between the mining company and local communities & other water users.

Dalradian do not seem to have submitted a separate application for an additional public water supply connection with a new pumping station to be provided by Water NI near the Greencastle Community Centre.

(Dalradian already has a public water supply connection at Curraghinalt on the Camcosy Road.)

The implications for the public water supply would put human health at risk downstream, particularly for those who rely on these sources for clean water, as water is abstracted at Newtownstewart for the people of the Castlederg area *and a large piece of West Tyrone**.

There would be environmental degradation especially during the construction phase, which would increase run-off and sedimentation, negatively affecting aquatic life in the tributaries of the Foyle River basin which are world famous for salmon fishing.

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<p>There would be considerable environmental destruction during the construction phase, which would increase run-off and sedimentation, affect aquatic life in the tributaries of the Foyle River basin.</p>	<p>223;</p>

(6) Long-term Sustainability Concerns

The long-term impact of the abstraction of large volumes of water seriously endangers the sustainability of both water and aquatic life in the North-West and raises the spectre of environmental degradation. The region's vulnerability to climate change (eg. storm of August 2017) would be exacerbated by significant changes in water use patterns, making the area less resilient to droughts or changes in precipitation. Dalradian's plan at closure to remove the linings of their "ponds" and allow the contents to soak into the ground would further contaminate the water table, aquifers, streams & rivers.

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This also would have a direct negative impact on my farm and livestock and this concerns me deeply as the burn itself runs through my property which would contaminate my livestock.)

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In view of the recent happenings when DAERA misled the PAC & the public at the Pre-Inquiry meeting on 20th March 2024, I have serious concerns about Government Departments' commitment to a Duty of Candour, transparency & accountability.
Given the irreversible impacts of these Abstraction & Impoundment applications, the precautionary principle must be applied and these applications refused.

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<p>Given the nature of mining and the well documented risks of pollution associated with this industry, what's measures are the department taking to ensure pollution to the water table will not occur as a result of water abstraction avenues?</p>	<p>353</p>
<p>What guarantees do us farmers have that rely on private water supply's that we will continue to have water availability for our farms? What guarantees do we have that the water we supply to our animals will be safe for them to drink and that contamination will not occur which impacts the food chain?</p>	<p>353</p>
<p>this applicant has been afforded a second chance to process this application as it was deemed at the pre-inquiry that procedural issues should have resulted in this application being determined at this point. Will the residents be afforded the same opportunities should we be faced with outcomes that don't meet our satisfaction?</p>	<p>353</p>
<p>Any pro argument regarding employment opportunities and economic benefit pale to insignificance against the many deleterious effects, as laid out above, by a project carried out in contravention of statutes designed to protect against such effects.</p>	<p>316;</p>
<p>How many such minings operations throughout the world have proceeded unchecked that today would love to turn the clock back. Let's, with the benefit of their hindsight, be prudent in refusing these applications. This is 2024 and more than ever before, we are all aware of the need to protect our environment. it is every citizen's duty - mine to write this letter laying out the consequences and yours to take the time to read it and act responsibly. Together we can be proud of our part in looking after the environment and saving such a beautiful part of the country for future generations to love and enjoy as we do.</p>	<p>193;</p>
<p>In conclusion, I urge you to carefully consider the objections raised against Dalradian's Water Abstraction & Impoundment Applications. The potential risks to the environment, water bodies, groundwater, biodiversity, and local communities are too significant to ignore. It is essential to prioritize the protection of our natural resources, the preservation of our delicate ecosystems, and the well-being of the people who call this area home. I implore you to reject these applications and ensure that proper environmental regulations and safeguards are in place to safeguard the future of our precious natural heritage.</p>	<p>264;</p>

<p>According to a local press article dated 30th November 2023, Dalradian will be mining for minerals such as Tellurium, Antmony, Bismuth, Molybdenum, and Cobalt. The only sensible way sensible way to process rare earth elements is at the source location, I note, a picturesque image of a tailings pond was added.</p> <p>According to independent research carried on behalf of the US Department of Defence, the most common source of processed Rare Earth Elements (REE's) is the Baotou area of Inner Mongolia. This involves crushing, milling, and separation to produce an oxide form. The oxides are then turned into metals. In the Baotou region the various pollutions including radioactive waste residue, acidic waste water, waste gas containing dust concentrate hydrofluoric acid, sulphur dioxide, and sulfuric acid. In fact, one ton of rare earths can lead to two thousand tons of mine tailings often containing the mildly radioactive Thorium.</p> <p>There are now numerous sources indicating that the consequences of this have led to:</p> <ol style="list-style-type: none"> 1. The loss of useable wells. 2. Loss of agricultural land. 3. Unsafe use of agricultural land. 4. Loss of aquatic life and fish deformities downstream on the Yellow River fresh water system. 5. Large increases in cancers. 6. Rural depopulation. <p>If this is granted; It is my view that fresh water systems in the greater Sperrins area, and downstream, will be severely polluted and damaged with corresponding consequences to ecology, wild life, agriculture and human health.</p>	<p>176;</p>
<p>Given the irreversible impacts of these Abstraction & Impoundment applications, the precautionary principle must be applied and these applications refused.)</p>	<p>211; 308;</p>
<p>These two applications are integral parts of the Dalradian mine project and should not be granted in isolation of the ongoing public inquiry. It is only within the public inquiry forum that the wider public interest can be served.</p>	<p>62;</p>

<p>We have to protect the Sperrins AONB, Owenkilleg SAC, Owenreagh ASSI, River Foyle & tributaries SAC & ASSI, and the Ramsar site nearby. They're super important for nature, and messing with them goes against a bunch of rules. Dalradian wants to dodge the rules on reservoirs, but that's risky and bad for the environment.</p>	<p>68;</p>
<p>Taking and dumping water like Dalradian wants to can mess up nearby streams and rivers, hurting the aquatic life that live there. Their plans are unclear and could really hurt things like freshwater pearl mussels, which are really rare.</p>	<p>68;</p>
<p>Dalradian's water plans could mess with groundwater levels, affecting wells and natural habitats. It's not just about the amount of water, but also the quality, and messing with it could make things worse.</p>	<p>68;</p>
<p>Dalradian's project could destroy habitats for local plants and animals, especially those protected by law. It's not just about the water; it's about how it affects everything around it.</p>	<p>68;</p>
<p>Using up more water could mean less for local folks and farms, especially when things get dry. This could cause fights between Dalradian and the community over who gets what water.</p>	<p>68;</p>
<p>Taking so much water could hurt the environment for years to come, making it harder for nature to bounce back from things like storms or droughts. And their plan to let their reservoirs soak into the ground at the end could just make things worse.</p>	<p>68;</p>

<p>There's been some shady stuff happening with the government not being upfront about what's going on. With such big consequences, we can't take any risks. So, please, let's not go through with these plans. It's just not worth the risk.</p>	<p>68;</p>
<p>Despite the assurances provided in the ES regarding the absence of adverse impacts on the aquatic environment, we urge the Department of Agriculture, Environment and Rural Affairs (DAERA) to consider the potential cumulative effects of the project on water quality, hydrology, and biodiversity. The Curraghinalt Project encompasses significant surface infrastructure components, including an underground mine, mineral process plant, clean water storage pond, and dry stack facility, all of which have the potential to disrupt natural hydrological processes and alter water flow patterns.</p>	<p>85;</p>
<p>Moreover, while the updated water studies may indicate no immediate adverse impacts on water bodies, it is imperative to consider the long-term sustainability of water resources in the region. Climate change and increasing anthropogenic pressures necessitate a precautionary approach to water management, especially in sensitive ecosystems such as those found in County Tyrone.</p>	<p>85;</p>
<p>As stewards of Northern Ireland's freshwater resources, we appeal to the DAERA to prioritise the protection of aquatic habitats and the conservation of native fish species in its decision-making process regarding the Curraghinalt Project. We advocate for the implementation of robust mitigation measures, ongoing monitoring protocols, and transparent communication channels to ensure the continued health and resilience of our waterways.</p>	<p>85;</p>
<p>It is imperative that the public enquiry before the Planning Appeals Commission independently and robustly considers the views of the community with regards to LA10/2017/1249/F and including AIL 2024 0003 and AIL 2024 0004.</p>	<p>86; 87;</p>

<p>The risk to human health and the environment arising from this plan is incalculable. It is undefined by Dalradian and clearly at odds with the responsibility to protect the aquatic environment, control effluent discharges, act to minimise the risk of pollution, and to regulate the quality of drinking water, held by the Northern Ireland Environment Agency, the Drinking Water Inspectorate, Northern Ireland Water and the Department of Infrastructure.</p>	<p>86; 87;</p>
<p>I remotely watched PAC pre-inquiry meeting held at Strule Arts Centre, Omagh live on 20 March and have followed the subsequent correspondence between PAC and other government-owned bodies up to June and as published on the Commission website. I have great concerns over the above applications not least because of the lack of transparency and competence in relation to government-owned bodies lawfully governing this aspect of Dalradian operations, including:</p> <ul style="list-style-type: none"> - The Public Inquiry Commission has had great difficulty that in pursuing and obtaining information pertaining to the previous applications (AIL2020/105 & AIL2020/106) and their approvals and approval of time extensions for the abstraction and impoundments licenses (pre-inquiry – action point 4). - The subsequent finding by the Commission that the department representative has knowingly, or unknowingly, mislead the commission at the pre-inquiry in the licensing and extensions to-date. - The summary by the Commission that the information and lack of information provided confirms that in fact no extensions in relation to abstraction and impoundments were ever granted to Dalradian. - The summary by the Commission of the Water Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006 and breaches to the regulations including several points in Regulation 19 means that the applications for abstraction and impoundment by Dalradian were deemed refused and end January 2021. Continued operations by Dalradian for almost 3.5 years has therefore been unlawful and government-owned bodies that are responsible for upholding the law have failed to use their enforcement powers to do so. 	<p>88;</p>

<p>Since there is no environment agency in Northern Ireland that is truly independent from Government, it is essential that these applications sit with the Planning Appeals Commission that is independent of government department, agency, council and free from political influence.</p>	<p>88;</p>
<p>I agree with the Chief Commissioner's response of 3 June to the NI Assembly Committee for Agriculture, Environment and Rural Affairs that they should refrain from corresponding with the Commission on this Public Inquiry not least as several members of the Assembly Committee has declared an interest in the Dalradian Inquiry as well as the need to preserve the independence of the Commission.</p>	<p>88;</p>
<p>. My only source of water for my dwelling is a bore hole 350ft drilled in the garden beside my house. If this proposal is allowed to go ahead, my well will be contaminated by acid mine drainage and it will run dry due to the drop in the water table which will surely occur due to the mining activities proposed by Dalradian. This is of huge concern not only for myself and my husband, but also for our young daughter and unborn baby. If this happens, it will leave my property uninhabitable. No information has been provided to give me reassurance that this will not happen. I have lived in turmoil over this past number of years due to the prospect of this planning application being granted, it has caused untold stress and hardship to my me and my family. It has not been healthy for my pregnancies. In fact, it has delayed us even considering starting a family. Which is a shame as both my own family and my husbands' can go back many generations of people who not only lived in this area, but lived off the land and contributed to it.</p>	<p>98; 100, 317; 142; 147, 184,373</p>
<p>In addition to this, other Water sources for local houses, known as NAME well, are directly under the Dry Stack Tailings Facility (DSF). There have been no proposals submitted by Dalradian on how these will be protected from contamination, in fact, Dalradian have actually admitted that there will be seepage from their facility. We also note that Dalradian have stated the water will return to its natural state after 100 years after mine closure; that is not an acceptable proposal.</p>	<p>98; 100 142; 147; 317; 184;373</p>

<p>Furthermore, Dalradian propose to treat all contaminated water with a state-of-the-art water treatment plant. My question would be, how do you treat water which you cannot catch? The water which will be in flowing into the mine will escape down through natural fissures in the rock which will contaminate all our local water aquifers and waterways for generations to come. Once this process starts, there is no way to stop it!</p>	<p>98; 100 142; 147; 317; 184;373</p>
<p>In fact, NI Water provided a response to Dalradian's application admitting there would be a risk to the raw water quality in the area. They have stated that the mining works and the use/storage of hazardous substances in this work should NOT be within 100m of the water catchment area. The plans put forward by Dalradian however, show the toxic tailings dump and plant to be built directly on top of the Pollanroe Burn.</p>	<p>98; 100 142; 147; 317;184;373</p>
<p>The plans put forward by Dalradian however, show the toxic tailings dump and plant to be built directly on top of the Pollanroe Burn.</p>	<p>100; 147 184</p>
<p>Additionally, due to the proximity of my house to the proposed development I would be extremely worried about water being extracted in large quantities, which will lead to a cone of depression, which could affect the stability of my house and those of my neighbours.</p>	<p>98; 99; 100; 147; 317;184, 142;373</p>
<p>The Pollanroe burn runs through my other uncles land on the farm on which my maternal family were raised, not one mile from his current residence. As children we played in this burn and it is my wish and desire to preserve this for the children and future generations to enjoy its natural state.</p>	<p>142;</p>
<p>This application was not granted in 2021, why then would it even be considered a possibility in 2024 when legislation around these issues has increased and intensified.</p>	<p>142;</p>

<p>The proposed area sits in an area designated as an area of outstanding beauty and is renowned for the abundance of wildlife in the area. This proposal severely threatens the biodiversity of both flora and fauna and no reassurance or policy has been provided to safeguard this nature reservoir from the pollutants the inevitably exist in large scale industries such as those ran by the Dalradian company . The Pollanroe Burn acts as a wildlife corridor from the river to the mountain; any disruption to this will surely threaten the extinction of any wildlife present here. Any change or discharge into the Pollanroe burn will have a devastating effect on the salmon, trout, pearl mussels, as well as other wildlife which breed and live in the burn.</p>	<p>317;100, 99 142; 147;</p>
<p>I have lived in this area all of my life, and resultingly have been able to avail of this area of outstanding natural beauty. I have many a happy memory as child availing of the natural beauty we are surrounded by. Being taught to swim and swimming with my Grandfather in local rivers being one of my most precious memories, something which I had hoped I could recreate with my own children – should this proposition go ahead, this dream will end, and with it a long line of my family enjoying this pastime.</p>	<p>98;</p>
<p>On reviewing the documentation for this application, I observed most of the data provided is only up to 2017, surely this application should have more up to date figures – presumably up to 2023 as we all know the climate is changing rapidly and therefore the figures put forward could not be accurate. This once again evidences a lack of detail or accuracy provided by Dalradian’s application and its blatant disregard for the safety of the community who live in this area. This application was not granted in 2021, why then would it even be considered a possibility in 2024 when legislation around these issues has increased and intensified.</p>	<p>317 98; 99; 100; 142 ;</p>
<p>This application was not granted in 2021, why then would it even be considered a possibility in 2024 when legislation around these issues has increased and intensified.</p>	<p>98; 99; 100;</p>

<p>The Department should note that the Independent Rain Fall Meteorological Data used by the applicant as a base line, is recorded at Lough Fea which is 20 Km from site. This proposed monitoring station is arguably not close enough to the proposed site and would, in my opinion, not be accurate to this area to use as a baseline. It could also be argued that rainfall in this area would in fact be higher due to the elevated location within the Sperrins.</p>	<p>98; 99; 100; 317; 142; 147; 184 373</p>
<p>Finally, I would like to highlight the conflict of interest with 'Golder Associates' and their input into this application for the applicant, as they now have a contract advising government agencies as an independent body on the application.</p>	<p>317; 142; 147 98; 99; 100; 184, 373</p>

<p>My house and farm are situated on the lower side of the Crockanboy road, directly below Dalradian's proposed development. Any contamination or disruption of the water by the development highly likely to infiltrate and contaminate our surface water and drinking water from our well, which I and my livestock depend upon.</p> <p>The proposal to build water "ponds containing almost 9 million gallons of "water"" above my house and property fills me with dread for the health and wellbeing not only for myself, visitors but also for my livestock. If anything goes wrong my life, my animals' lives and those of our neighbours will be in grave danger.</p> <p>From a common-sense view point the proposal of having these 'ponds' situated on the side of a mountain is utter madness.</p> <p>If Dalradian's are allowed to extract this much water we will be left in times of drought with no water for ourselves or our animals.</p>	<p>99;</p>
<p>If this proposal is allowed to go ahead, my well will be contaminated and the surface water from the proposed mine site will make its way down and flows across my land where it will enter the Pollanroe burn. Any leeching at the development will make its way onto my land through natural springs and be a danger to myself and livestock.</p>	<p>99;</p>
<p>The Pollanroe burn runs through my land on the farm on which I was brought up. As children we played in this burn and it is my wish and desire to preserve this for future generations to enjoy its natural state. I have lived in this area all of my life, and resultingly have helped numerous neighboring farmers, I am aware of the abundance of wildlife we have in the area. Should this proposal go ahead, their existence in this area would be severely threatened. The Pollanroe Burn acts as a wildlife corridor from the river to the mountain; any disruption to this will surely threaten the extinction of any wildlife present here. Any change or discharge into the Pollanroe burn will have a devastating effect on the salmon, trout, pearl mussels, as well as other wildlife which breed and live in the burn.</p>	<p>99;</p>

<p>The Pollanroe burn runs through my other brother's land on the farm on which we were brought up, not one mile from his current residence. As children we played in this burn and it is my wish and desire to preserve this for the children and future generations to enjoy its natural state. On reviewing the documentation for this application, I observed most of the data provided is only up to 2017, surely this application should have more up to date figures – presumably up to 2023 as we all know the climate is changing rapidly and therefore the figures put forward could not be accurate. This application was not granted in 2021, why then would it even be considered a possibility in 2024 when legislation around these issues has increased and intensified.</p>	<p>147;</p>
<p>We oppose the granting of these Abstraction Licences to Dalradian Gold as part of a proposal to open a gold mine that will pollute the water, air, land and damage people's health. Moreover, Dalradian's predicted water consumption rate is about 10% of what is standard in the goldmining industry and no explanation has been given¹. Furthermore, the high-risk proposal for a goldmine is totally unnecessary as there is an ample supply of gold readily available to supply demand for many generations². These resubmitted applications are an integral part of Dalradian's overall gold mining application and should not be considered in isolation from it. This submission adds to our previous Objections made to Dalradian Gold's earlier applications.</p>	<p>101, 219;</p>
<p>I write to oppose the granting of these Abstraction Licences to Dalradian Gold as part of a proposal to open a gold mine that will pollute the water, air, land and damage people's health. It has been highlighted by Professor Steven Emerman, a recognised specialist in the field, that Dalradian's predicted water consumption rate is about 10% of what is standard in the goldmining industry and no explanation has been given¹. Furthermore, the high-risk proposal for a goldmine is totally unnecessary as there is an ample supply of gold readily available to supply demand for many generations². These resubmitted applications are an integral part of Dalradian's overall gold mining application and should not be considered in isolation from it.</p>	<p>153;</p>

The geographical location is of central importance: the Sperrins AONB, the Owenkillew SAC, 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, Creggan Bog Local Nature Reserve, etc. This environmentally sensitive site has to be protected from such a toxic and intrusive operation as is this gold mining application. These designated areas are all crucial for biodiversity and ecological balance. Any risk or damage to them is in contravention of Fermanagh Omagh Local Development Plan (2030), Water Framework Directive (2015 & 2017), Habitats Regulations (1995), and the Owenkillew River Management Plans (2013 & 2023).

101 153; 146

Dalradian must not be allowed to escape the legislation associated with reservoirs simply by renaming the reservoirs as storage 'ponds'. The term 'pond' is a misnomer. How can so-called "ponds" containing almost 9 million gallons each (40,260 m³ / 8,855,962 gallons & 38,855 m³ / 8,546,905 gallons) be treated less seriously than reservoirs containing 10,000+ m³ / 2,200,000 gallons? It appears from recent disclosures from DAERA to the PAC that consultation about this matter took place through a few emails (& phone calls, no doubt) the weekend following the PAC Pre-Inquiry meeting on 20th -24th March 2024. The initial reply from Department for Infrastructure (DfI) to DAERA's query on Friday 22nd March 2024 as to "whether the Reservoirs Act would apply to lagoons holding 40,000 cubic metres & 39,000 cubic metres" stated categorically that "it absolutely would" & "The Reservoirs Act (NI) 2015 will introduce a proportionate regulatory framework for the management & maintenance of reservoirs holding 10,000 cubic metres or more of water above the natural level of the surrounding land and defined as controlled reservoirs - which would include the two I can see from the applications attached." Another email then followed from DAERA & by Sunday 24th March 2024 at 8.52pm the response from DfI had changed to "the lagoons fall outside of the Act" & "it seems that the ponds will be excavated structures and as such, the storage volume will be below the natural level of the surrounding land." Not only is this change of opinion highly suspicious, but it is questionable as the surrounding land is of an undulating nature and dependent on where measurements are taken, one could certainly argue otherwise. Dalradian Gold's argument for avoiding regulation of these reservoirs is lacking and requires substantial explanation.

101 153; 146, 219

The application states that surface water from north of the proposed infrastructure site will be “collected” in the North Diversion Berm & “directed” to the “Clean Water” Pond. This description of what in effect is a highly managed industrial process is both too vague- and requires further clarification. How is the water “collected” and how is it “directed”? What type of constructed channel will it be directed through? What will be the return period for overflow of this channel? Where will the water go after it overflows the channel? From what size of area do they intend to abstract half a million gallons of water per day, 365 days a year for 20 years? Does Dalradian have “water rights and access rights” over such an area? This is not stated. Also, how are “contact water and non-contact water” managed “to maintain separation”?

101 153; 146, 219

Most of the area from which Dalradian Gold is applying to abstract water is covered in peat, supporting blanket bog and wet heath habitats that are recognised as priority habitats in NI & are listed under Annex 1 of EU Habitats Directive. The proposed abstraction would cause ecological damage in contravention of the Habitats Regulations (1995). Peat bogs are also important as natural flood alleviation because of the amount of water they store. Dewatering peatland could have outcomes in terms of flash floods and land erosion / destabilisation events. Contrary to what Dalradian's consultant, Gahan and Long, wrote in their letter of 28th January 2022, it stands to reason that the abstraction of half a million gallons of water per day every day of the year for 20 years would lead to the drying out of the bog land which would also increase the risks of widespread fires.

Dalradian need to clarify what they are actually planning on doing. Are they planning to capture standing water from the peatland or pump standing water out of the peatland or capture the rain that falls on the peatland or capture the water from an existing channel that is flowing through the peatland? Dalradian has failed to evidence that the water to be abstracted does not include headwaters of the Pollanroe Burn, the unnamed watercourse and other tributaries.

Furthermore, given the amount of water proposed to be abstracted from the peatland, it seems impossible that sub-surface archaeological deposits would survive within the infrastructure site.

Dalradian's plans to remove 74 acres of peatland to build their infrastructure as well as their industrial activities including vibrations & blasting twice a day, every day of the year for 20 years would shake and destroy any sub-surface archaeological deposits³. The wider area is abundantly rich in archaeological sites, which are part of our cultural heritage, and any risk or devastation to it would be an attack on our human rights⁴. Additionally, local people have no faith in Golder's reports, as we believe there is an inherent conflict of interest as Golder had previously worked for Dalradian Gold before they were engaged as consultants for the Department. It is our opinion that they deal with the issues superficially in choosing to highlight "straw men."

101 153; 146, 219

<p>The peatlands will leak carbon if their water is abstracted. The destruction of 1000 acres of peatland releases 2.7 million metric tons of carbon dioxide. “Peatlands are the largest terrestrial carbon store. They store twice as much carbon as all of the earth’s standing forests, even though they only cover 3% of the world’s land surface”.⁷ In these times of climate crisis, people are encouraged to conserve and restore peatland.⁸ In fact, DAERA/NIEA has funded such a project at Haughey’s farm, close to the site of the Dalradian gold mine proposal. The risks of water drawdown by the proposed gold mine approximately 1,000 metres deep and the impacts on projects such as NAME farm, have not been assessed.</p>	<p>153; 146 101, 219</p>
<p>Dalradian use out of date annual average rainfall figures from Lough Fea as 1347mm. The MET Office Report on NI Climate (Oct 2016) states that the rainfall in the wettest places in the Sperrins was 1600 mm and that at Killeter forest in the west of Co Tyrone the annual average was 2000 mm. Therefore, Dalradian appears to have downplayed the rainfall. The incorrect rainfall data could mislead regulatory assessments. Up-to-date data are required and these applications must be comprehensively assessed in relation to elevation and climate change. Due consideration to climate change is required by the Global Industry Standard on Tailings Management⁹. Local people recall the extreme weather event in August 2017 when parts of the Sperrins including the Glenelly¹⁰ and Owenkillew valleys experienced severe flooding and landslides. More recently, the Meenbog slippage in Co. Donegal had a disastrous effect on the River Derg and hinterland in Co. Tyrone¹¹. The area’s vulnerability to climate change would be exacerbated by significant changes in water use patterns, making the area less resilient to droughts or changes in precipitation. Dalradian’s negligence in failing to give in-depth regard to these issues remains a major shortcoming throughout all their reports.</p>	<p>101 153; 146, 219</p>

<p>Water quality in the Pollanroe Burn & in the Owenreagh River into which it flows will be negatively impacted as a result of this project. It is significant that Dalradian says “groundwater quality is not considered relevant to the abstraction licence applications” The proposed abstraction and discharge of water could lead to reduction in water quantity and degradation of water quality in nearby rivers and streams, thus affecting aquatic life. The abstractions would change the natural flow regimes of the local water bodies, especially the Pollanroe Burn, the unnamed watercourse and the Owenreagh River, affecting aquatic habitats and species that depend on specific flow conditions, particularly the freshwater pearl mussels, which are Ireland’s only globally endangered species. Dalradian’s plan at closure to remove the linings of their “ponds” and allow the contents to soak into the ground could further contaminate the water table, aquifers, streams & rivers. The precautionary principle¹² demands that such high-risk proposals of Dalradian be rejected, in order to protect the waterways and the highly vulnerable ecology.</p>	<p>101 153; 146</p>
<p>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 reports stated it would take 100 years post-closure. No explanation for the big change has been provided. What is the public to believe?</p>	<p>101 153 146</p>
<p>Dalradian has NO respect for the unnamed watercourse from which they propose to cut off its head and divert some of its flow, leading to major adverse impacts. Just because it has no name doesn’t mean it has no function in the Foyle River System. It is hydrologically connected to the Owenreagh river with its protected FWPM and damage to it negatively impacts the entire river system. Fermanagh and Omagh District Council recognises the Rights of Nature¹³- therefore this ‘unnamed’ watercourse has the right to exist, flourish, regenerate and to be protected.</p>	<p>101 153; 146</p>

Dalradian have not provided convincing evidence to show that the resultant increases in all flow conditions (average annual, monthly & low flow) from these abstractions & impoundments will not increase flood risks, out of bank flows, bank erosion and deterioration of ecological habitats. The vast amounts proposed to be discharged to the Pollanroe Burn have the potential to impact negatively on the morphology of the burn and on the Owenreagh River into which it flows. The project contravenes the Water Framework Directive (WFD) by failing to protect river morphology and maintain good ecological standards. This is also in contravention of the Habitats Regulations NI (1995). The abstraction and dewatering processes could disrupt the habitats of local flora and fauna 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 could negatively impact biodiversity, especially for species sensitive to changes in their aquatic environment, including freshwater pearl mussels, salmon, trout and otters.

101 153; 146, 219

The Abstraction activities are predicted to change groundwater levels due to dewatering of the mine (1700 m³ per day, i.e. 374,000 gallons/day x 365 days per year for 20 years) which could adversely affect local wells and groundwater-fed natural habitats, as well as lowering the water table. Changes to groundwater levels will become more critical over the life of the mine. These changes could impact massively and progressively on groundwater abstractions, surface water and peatland. The vast amounts of water abstraction could lead to a significant reduction in groundwater levels, affecting local water availability and quality. Adverse impacts from this abstraction could be shortages of supply, increased pollution through reduced dilution, and damage to habitats dependent on the water bodies. All groundwater bodies in NI are designated as Drinking Water Protected Areas under Art. 7 of EFD (20060/EC). These applications could jeopardise both quantity and quality of public water in a geographical location previously identified as high risk. Changes in groundwater levels may mobilise and spread contaminants, affecting local water quality and ecosystems.

101 153; 146

Increased water consumption for the project could reduce the availability of water for local communities and family farms, particularly during dry periods. Competition over water resources could lead to additional conflict between the mining company and local communities or other water users. Dalradian does not seem to have submitted a separate application for an additional public water supply connection with a new pumping station to be provided by NI Water near Greencastle Community Centre. (Dalradian already has a public water supply connection at Curraghinalt on the Camcosy Road.) The implications for the public water supply could potentially impact human health downstream, particularly for those who rely on these sources for clean water, as water is abstracted at Newtownstewart for the Derg Reservoir to provide a public water supply for approximately 40,000 people of the Castlederg area. NIEA, in their 2019 report "Drinking Water Quality in NI" stressed the need to protect the catchment from which water is abstracted in order to improve the water quality and reduce potential contamination risks.

101 153; 146

These abstraction applications acknowledge some impacts on the Pollanroe Burn, the unnamed watercourse and to a lesser extent on the Owenreagh River into which they flow. However, they do not recognise the fact that the Owenreagh River joins the Owenkillew River a short distance away and that both these rivers and all the watercourses that flow into them are hydrologically linked and are in fact the headwaters of the Foyle River System. Dalradian pays no regard to the impacts of water abstraction on the Owenkillew or Foyle River system.

The long-term impact of the abstraction of such vast volumes of water could seriously endanger the sustainability of both water and aquatic life in the North-West as well as raising the spectre of environmental degradation in contravention of environmental and Habitats regulations.

The NIEA letter of 18th November 2021 asked Dalradian to verify whether the proposed abstractions would impact the status of the groundwater body based on a water balance test. Kaya, on behalf of Dalradian, on 17th December 2021, replied with regard to 'Provision of a Water Balance Test' - that "abstracted water that is returned is excluded from the calculation." This statement of Dalradian is puzzling and requires further clarification. Surely the half a million gallons of water proposed to be abstracted daily from the peatland is very different water from the 374,000 gallons of contaminated water proposed to be abstracted from the mine every day. The water quality has very obviously been altered before being returned to the environment. Dalradian's application form states 100% of abstracted water will be returned, but does not state an actual figure. Dalradian have failed to state clearly what precisely it means by these statements. Will it be 874,000 gallons daily (abstraction from the peatland plus abstraction from the mine) plus discharge & excess water from the so-called "Clean Pond", discharge from the Water Treatment Plant, under drainage from the Dry Stack Facility/Tailings Dam & Management ponds/ tailings ponds upstream of the Water Treatment plant, non-contact water from the Eastern Diversion Ditch & Natural runoff from surrounding fields, none of which have been quantified? Kaya states there will be no impact on the status of "the Gortin groundwater body" as a result. This fails even to grasp the fact that such industry-managed and returned water would be different in quality and temperature and would impact negatively the rivers and their protected aquatic life. How can this statement be accepted when the various effects on the groundwater body have not been convincingly assessed?

101 153; 146

Dalradian has not convincingly demonstrated that the proposed two-year construction phase would not disturb the natural ground surface cover of the headwaters of the Pollanroe Burn and increase run-off rates and sedimentation, negatively affecting aquatic life. Dalradian suggest that the risks of damage during the first 2 months construction or indeed during the first 2 years of construction works are negligible. They do not address the exceptional importance of protecting the Fresh Water Pearl Mussels, Ireland's only globally endangered species. This is a significant lacuna. Once they are killed, they are gone forever.

101 153; 146

The cumulative impact of all the adverse impacts of these water abstractions has not been assessed. Given the sensitivity of aquatic life to ANY extractives-industry caused change in the water environment, the failure by Dalradian Gold to address thoroughly the impact of the many changes to this water environment, including the temperature fluctuations that would be caused by the proposed management of the whole water system for the needs of the gold mine (as opposed to the needs of the Burns or of the rivers or of the pearl mussels, salmon, trout or people), is shocking and reinforces the reasons for refusing these abstraction and impoundment licences.

101 153; 146

Evaluation of the Updated Environmental Statement for the Proposed Curraghinalt Gold Project, County Tyrone, Northern Ireland. Emerman, S.H. 2020

2 <https://www.gold.org/about-gold/market-structure-and-flows> The annual technology demand (10-year average, 2013-2022) is 329 metric tons. The total aboveground stock in easily convertible form (bullion, coins, jewelry, etc.) is 208,874 metric tons. Therefore, there is enough aboveground gold to satisfy technological needs for another 635 years. <https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-gold.pdf> "Estimated global gold consumption, excluding exchange-traded funds and other similar investments, was in jewelry, 46%; central banks and other institutions, 23%; physical bars, 16%; official coins and medals and imitation coins, 9%; electrical and electronics, 5%; and other, 1%."

3 Juukan Gorge: <https://www.dcceew.gov.au/sites/default/files/documents/australian-response-to-destruction-of-juukan-gorge.pdf>

4 Article 27 UN Right to Culture UN Universal Declaration of Human Rights

5 Dalradian Proposed Curraghinalt Project Surface Water Quality Review. Golder Associates, 5 March 2021. Ref 3.2.3.1 Conceptual Site Models, Backwards Modelling (arsenic, mercury); Ref 3.2.3.3 Events in Excess of Design Criteria; Ref 4.4 Assessment of Associated levels of uncertainty Also in: Dalradian Proposed Curraghinalt Gold Mine Project – Water Balance Review. Golder Associates, 8 March 2021. Ref 4.3 / 4.4/4.7 Conceptual Models / Uncertainty in Model Inputs and Outputs. Ref 4.11.1 / 4.11.2 Maintenance of Low Flows Reduction of Erosion (Pollanroe Burn).)

6 <https://files.dnr.state.mn.us/aboutdnr/reports/carbon2008>

7 The Guardian 28/07/2017

8 Northern Ireland Peatland Strategy. 2022 - 2040 DAERA

9 https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

10 Loughs Agency video: <https://www.youtube.com/watch?v=clq9duook6M>

11 <https://blogs.agu.org/landslideblog/2020/11/16/meenbog-peat-slide-1/>

12 The Precautionary Principle is one of 5 Principles of the Environmental Principles Policy Statement (EPPS) UK 2023

13 <https://ecojurisprudence.org/initiatives/fermanagh-rights-of-nature-motion/>

<p>https://soundcloud.com/user165426555/black-bog-2024/s-VDdRcPKtC8S?si=a8e9d68c9a0f43aba7384b47a56c59a9&utm_source=clipboard&utm_medium=text&utm_campaign=social_sharing</p> <p>(Audio recording of the Black Bog)</p>	362;
<p>I was disturbed by the response I received from NIEA Water Regulation Team on 22/12/2020 advising me to “see copies of licences attached” when I had asked for the earlier Water Abstraction applications documentation AIL/2020/0105 & AIL/2020/0106. I then suspected the decision has already been made to grant those licences and that the public was wasting their precious time responding to so-called consultations. When I queried this, I subsequently received an apology from OFFICIAL NAME on 7/1/2021 saying “it was an error and not an indication of the Department’s position.” However, when the responses/representations to AIL/2020/0105 & AIL/2020/0106 were collated, my comment about concerns that a decision had already been made was not included, although I had stated it in my objection. The recent happenings when DAERA/NIEA misled the PAC & the public at the Pre-Inquiry meeting on 20th March 2024, reinforced my concerns about the Government Departments’ commitment to a duty of candour, transparency and accountability.</p>	146
<p>Several points raised in relation to the protection of the Black Bog RAMSAR Site, referencing the following issues:</p> <ul style="list-style-type: none"> - Reporting to the RAMSAR Convention. - Matters arising relating to the inclusion of cyanide in earlier version of the proposal. - References to the Article 24 of the Nature Conservation and Amenity Lands Order 1985 seeking evidence of where this order has been considered. - Outlining the RAMSAR obligations seeking evidence of NIEA’s compliance with Article 3.1 of the RAMSAR Convention, confirming the need to protect the integrity of internationally important sites. - The Black Bog is the only RAMSAR in this district and should be protected, provision of a summary of the importance of the site. - Highlighted concerns of the impact of the proposal on the Black Bog highlighting particularly Dust, maintenance of the water table, air pollution - Reference to legal precedence of the Waddenzee and Sweetman cases. - Reference to the peatland restoration work underway / supported by DAERA. 	152, 170

<p>According to The Environment (Northern Ireland) Order 2002 Article 28(2) the Environmental and Heritage Management Plan states:</p> <p>Bogs depend on rainwater and maintaining a high water table is vital to the "health" of the bog. In addition, the peat soils and many of the species that grow there are very sensitive to physical disturbance</p> <p>One of the by products of the cyanide processing is ammonia, very damaging to flora, particularly heathers and indeed those aforementioned rare species. Additionally ammonia will also be present in the tailings and may become airborne.</p> <p>This project plans to use 4.3million litres of diesel per annum – 5km away. Diesel fumes are particularly toxic as evidenced in the recent government decision to move away from diesel cars. They will cause severe pollution to the air and will affect the health & well being of people. They will also cause irreparable damage to the ASSI, RAMSAR protected Blackbog, which took thousands of years to grow.</p>	<p>152, 170</p> <p>152, 170</p>
<p>Dalradian's methodology for calculating the increased traffic on the small rural local roads is seriously flawed. They mention 128 one way journeys per day during the construction phase and 111 one way journeys during the operational phase - will these vehicles not make a return journey daily? In addition to the onsite emissions the CO2 pollution from the 256 vehicles travelling daily on the A505 road, less than 1km from the Black Bog, will totally destroy this wonderful natural treasure. This cannot be allowed to happen. The overall combined significance of all these factors will effectively destroy this Ramsar site. Has the NIEA consulted the international Ramsar committee of this proposed project?</p> <p>Fundamentally in accordance with Habitats Regulation Assessment legal precedence states</p>	<p>152, 170</p>
<p>Groundwater Vulnerability and Hydrology</p> <p>The proposed water abstraction could significantly alter local hydrology, leading to detrimental effects on groundwater and surface water systems. Given that the area has the highest groundwater vulnerability in Northern Ireland, this poses severe risks to local aquifers and ecosystems. Citing the following:</p> <ul style="list-style-type: none"> - Water Framework Directive (2000/60/EC) - Case C-461/13 Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland (Weser Ruling) [2015] 	<p>152, 170</p>
<p>Given this is an area of high groundwater vulnerability this means the underground aquifers could be diverted, rerouted, destroying existing water courses that were present for thousands of years.</p> <p>Dalradian propose to use explosives everyday, morning and afternoon where the impact of the explosives is not fully known. Dalradian will also be working underground with heavy machinery, tunnelling up to 700m below surface level. The machines tunnelling, the vibration and movement could easily negatively impact on underground aquifers. This is actually a major Health and Safety issue not addressed. Imagine an excavator driver 500m metres below ground and he strikes a fast flowing underground aquifer. He would be drown. Given the precautionary principle this mining operation and application must be abandoned.</p>	<p>152</p>

<p>The Owenkillew and Owenreagh Rivers are designated as Areas of Special Scientific Interest (ASSI) and are part of the Foyle River system, which supports diverse and unique aquatic habitats. The potential for increased sedimentation, chemical pollution, and alteration of flow regimes poses a direct threat to these protected areas. Citing the following:</p> <ul style="list-style-type: none"> - Commission v. United Kingdom (C-6/04) highlights the obligation to avoid damaging protected sites. - Morge) v Hampshire County Council [2011] UKSC 2 	152
<p>The Owenreagh ASSI, has upstream and downstream designation however approximately a 3 mile stretch where Dalradian plan for their gold mine and processing plant has not been designated. This proves beyond doubt that the statutory agencies, namely the NIEA, continue to facilitate Dalradian. There is no good reason why, for a 3 mile stretch, that there is no ASSI designation. Pearl mussels and protected species are found both upstream and downstream. This has to be reviewed prior to a decision on this application. If this stretch of the river was designated an ASSI then Dalradian's original planning application, would never have been lodged let alone approved, based on the current information in the portal.</p>	152
<p>The Climate Change (Northern Ireland) Bill 2022 underscores the need for all sectors to contribute to mitigating climate change impacts. Dalradian's operations, with their significant carbon footprint and energy consumption, run counter to the objectives of this Bill. Approving the application would undermine Northern Ireland's climate commitments and set a detrimental precedent. Please refer to ClientEarth v Secretary of State for Environment, Food and Rural Affairs (2017), which upheld the government's duty to take action to mitigate climate change under the Climate Change Act.</p> <p>Carbon Storage: Raised bogs act as significant carbon sinks. Disturbing these ecosystems through water abstraction can release stored carbon dioxide, contributing to climate change. Protecting these bogs aligns with broader environmental goals of climate change mitigation. This project will directly remove hectares of peatland, impact on the surrounding peatlands including the Black Bog</p> <p>The Kyoto Protocol and subsequent climate agreements underscore the importance of maintaining natural carbon sinks. National policies and commitments can be leveraged to argue against activities that jeopardise these critical ecosystems. Please confirm that the Kyoto Protocol has been applied.</p>	152, 170
<p>Historical Precedents and Risk Mitigation Historical precedents highlight the importance of applying stringent regulatory standards to all large impoundments, regardless of their intended use. For example, the Teton Dam disaster in the USA (1976) demonstrates the catastrophic risks posed by reservoir failures. Such risks justify the application of the Reservoirs Act to Dalradian's proposed impoundments to ensure public safety and environmental protection.</p>	152, 170

Based on the Precautionary Principle deep underground radioactivity surveys must be undertaken. From Appendix 4 it has been shown radon and radioactivity is present in water. By abstracting water that is radioactive and impounding it this is a major health and safety risk. I have already made NIEA aware of this in past objection letters but to date they have failed to instruct Dalradian to undertake meaningful radon and radioactivity surveys. Based on the information in the application portal the current radon report totally failed to establish the true radon figures for this proposed site. The report only reviewed information using primitive monitors, at "selected" locations and at only shallow depths. Given the waste will be generated from deep underground, up to 900m below ground, it is clear a detailed investigative survey is required. Please confirm that as part of this application process NIEA/DAERA will insist on a detailed, independent radon and radioactivity survey/investigation be carried, to include investigation of radioactivity including uranium, its daughters, thorium, caesium-137, strontium-90, plutonium-241, Americium-241. As this is not a mining region, with NIEA/DAERA having no expertise in mining, then it is no surprise that this survey has been overlooked. Based on the Precautionary principle these surveys must be completed. Furthermore, given the fallout from Chernobyl please confirm that radiation is being measured and that it has been measured for this proposed abstraction and impoundment application and indeed for the underground mining and processing plant.

It is imperative that that this radiation is measured, including radiation sitting dormant on the ground, by an independent testing laboratory. Please identify the testing methods and confirm that testing has been carried out as part of this proposal, if not it is imperative this is done immediately. The following are some to be tested for: iodine-131, caesium-137, strontium-90, plutonium-241, Americium-241 The **Environment (Northern Ireland) Order 2002** mandates DAERA to prevent activities that harm public health, supporting the argument against abstraction in radon-prone areas. This will obviously include areas high in radioactivity. Full radioactivity surveys and radon testing deep underground must be undertaken before any planning approval can that place. Measurement is a baseline requirement when applying the Precautionary Principle. To ensure the Health and Safety of Dalradian employee's, the local community including the local primary school 1200m from this site, this is essential. This is a basic requirement based on the Aarhus convention and ECHR.

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<p>There is a real danger that the high levels of arsenic, found in the natural geology of this site will be seriously harmful to the local community, potential workers and significantly to the water. Exposing this rock, crushing it and placing it in impounded areas will be detrimental to human health and the natural environment. Extracted water may contain high levels of arsenic also. The DfI stated at the Pre-Inquiry meeting that this application conforms with the precautionary principle, if so this dictates that not only would this application be refused but the entire gold mining application MUST be refused.</p> <p>Detailed below are two emails, obtained through a FoI request. The first email was in September 2017 from Invest NI seeking investment from Chinese banks for mining activities in Northern Ireland and the second is a response requesting further information seemingly following a meeting. Firstly to know that our civil service departments were essentially selling off our precious resources to Chinese banks is mind-blowing however the most alarming information is the response from the second email.</p> <p>In January 2018, the responding email to the Investment Manager of Invest NI, during which time Dalradian had submitted the planning application for the proposed gold mine and cyanide processing plant, sought further information, identified a major issue with the gold vein and proposed a solution. The Email stated that following research, they discovered that the biggest issue with the gold seam, Dalradian belt gold vein, was that it contained really high levels of arsenic. It stated Galantas, (gold mining company in Omagh) had concentrate of 8% and Dalradian's levels might be even higher. He goes on to state that the treatment process is highly polluting and Chinese banks would not invest in any mining where the arsenic concentrate was greater than 0.5%. He even stated this might be the "real problem for local community and government in Northern Ireland and any other country". He offered a smelting solution however the planning application was already in place, for the cyanide processing plant.</p>	<p>152</p>
<p>The Northern Ireland Civil Service, working on behalf of Dalradian, were fully aware of the dangers of this mine. During all the information supplied by Dalradian in this planning application there was no mention of the dangers of arsenic or indeed any subsequent mitigation measures. It is clear that the Civil service and the board of Directors were fully aware of this. Once again, as NIEA, do not have the technical expertise in precious metal mining, they have failed to identify this issue. Dalradian, knowing that there are high levels of arsenic concentration, should have made, DfI, NIEA and DAERA aware of this issue. This should also have been listed on a risk register with the appropriate mitigation measures. It is clear that when applying the precautionary principle this abstraction and impoundment application must be refused. Not only that, the entire planning application must be refused on the basis of this startling news.</p> <p>Under Freedom of Information, I request that all information concerning arsenic in relation to the Dalradian planning application and related conjoined applications, from 2009 until the present day, is provided to me and to the PAC.</p> <p>Once again it is really concerning to know that DfI openly stated that in terms of environmental information they were working to "minimum standards". The lives and health of our people and our</p>	<p>152</p>

<p>environment are at stake here. As stated above, the precautionary principle, dictates that not only must this abstraction and impoundment application be refused but also the entire gold mining application.</p>	
<p>The cumulative impact of water abstraction, impoundment, and mining activities on the Black Bog and surrounding ecosystems has not been adequately assessed. These activities threaten to degrade the unique biodiversity and ecological services provided by the Ramsar site and other protected areas. According to the Ramsar Convention and related EU directives, any development likely to cause significant adverse impacts must be rigorously scrutinized and, if necessary, halted to preserve ecological integrity.</p> <p>Biodiversity and Habitat Loss: Raised bogs are home to specialised plant and animal species that are highly sensitive to changes in water levels. Water abstraction can lead to habitat degradation, loss of biodiversity, and disruption of ecological balances. *R v Secretary of State for the Environment, ex parte Friends of the Earth [1997] JPL 117** demonstrated the importance of rigorous environmental assessments to protect sensitive ecological areas.</p>	<p>152</p>
<p>The combined effects of water abstraction, high radon levels, groundwater vulnerability, and protected statuses (AONB, RAMSAR, ASSI) create a compelling case against the project.</p> <p>Legal Precedent: An Taisce (The National Trust for Ireland) v An Bord Pleanála [2015] IESC 10 highlighted the necessity for comprehensive EIAs that consider cumulative impacts.</p>	<p>152</p>
<p>This application affects our human rights as indigenous people particularly:</p> <p>Right to a Healthy Environment: Cite Article 1 of Protocol 1 of the European Convention on Human Rights (ECHR), which recognises the right to peaceful enjoyment of possessions, including environmental assets. The Aarhus Convention, ratified by the UK and EU, also affirms the right of individuals to live in an environment adequate for their health and well-being.</p> <p>Right to Life and Health: Refer to Articles 2 (Right to Life) and 8 (Right to Respect for Private and Family Life) of the European Convention on Human Rights. These articles protect individuals' rights to life and health, which could be threatened by pollution and environmental degradation resulting from the proposed gold mine.</p>	<p>152, 170</p>

<p>Right to Participation and Access to Information: This application will take away our rights given there is no public consultation under the Aarhus Convention, which guarantees public participation in environmental decision-making and access to environmental information.</p> <p>Legal Precedent: There are legal precedents that support our human rights such as; Hatton and Others v United Kingdom (2003) and López Ostra v Spain (1994), where the European Court of Human Rights ruled in favor of protecting individuals' rights to health and the environment in the face of environmental harm.</p>	
<p>As far as I am aware, Dalradian initially stated they required approximately 560,000 litres of water per day (2017), following voluntarily dropping the cyanide processing plant went to approximately 380,000 litres per day (2019) but in this abstraction application require only 200,000 litres per day(2021).</p> <p>Professor Emerman, an independent expert witness, with extensive experience in gold mining consultancy, has written a report "Evaluation of the Updated Environmental Statement for the Proposed Curraghinalt Gold Project, County Tyrone, Northern Ireland" 2020, where he states "The predicted water consumption rate is less than 10% of gold mining standards, even after adjusting for filtering the tailings and not using cyanide treatment." This report was produced in 2020, before the new abstraction and impoundment application which lower the water abstraction requirement to 200,000 litres per day. NIEA are in possession of this report.</p> <p>Furthermore this report clearly demonstrates there is no basis for these water abstraction levels. It also demonstrates the dangers of proposed impoundment. His recommendation was: "Taking into account that the update of the Environmental Statement has made so little progress toward ensuring the health and safety of the local communities, it is recommended that the proposal for the Curraghinalt Gold Project be rejected without further consideration." Please find a copy of this report as an appendix.</p> <p>The only rational conclusion to draw is the ever decreasing water requirement is to achieve planning approval. As I stated in my 2018 letter to NIEA, when extracting water using boreholes there is no regulation to monitor the quantities of water abstracted. This means the impact of the abstraction would be essentially catastrophic to the environment, including the peatlands and the Black Bog Ramsar Site. As stated in my letter, Dalradian is already aware of a water course, disappearing overnight in the Camcosy valley, adjacent to their site on the Camcosy rd Gortin, after exploratory drilling.</p> <p>There must be a public consultation held in relation to this abstraction and impoundment licence as a direct impact on the local community in terms of farmers using water, well owners, potential lose water given the this site is located in the highest level of groundwater vulnerability, in close proximity to a RAMSAR site, directly impacting on ASSI rivers leading to a treatment plant providing drinking water, in an area of the highest level of Radon (where surveys were only undertaken a shallow levels despite this</p>	<p>152, 170</p>

<p>planned mine being 700m underground) in the heart of an AONB, in close proximity to a school and local village.</p>	
<p>As a side note: NIEA are also in possession of another report by Professor Emerman, where Fidelma O’Kane took a judicial review against NIEA and Dalradian. This report, linked to this application, demonstrates that Dalradian’s planning application cannot proceed, given they can never meet the discharge consent levels (2019). This report and all corresponding information must be uploaded onto the Planning portal and forward it onto the PAC as this is directly related to this application. By not uploading this report this is not just malfeasance in office but fraudulent and against the public interest. Incidentally the baseline figures for consent discharge MUST be pre 2009 when Dalradian first came to Curraghinalt. Beyond this Dalradian will have started boreholes and working on the adit (exploratory mine) and will have negatively affected the river quality. By using a baseline after 2009 this means the water quality is of a lower standard. NIEA, in its role to protect the environment, should be pursuing Dalradian to bring the water quality up to the level pre 2009, rather than facilitating them to establish a gold mine and processing plant which will inevitably have a negative impact on our environment – land, air and water. The baseline for all environmental studies must be pre 2009, including water consent levels.</p>	<p>170</p>
<p>There are major concerns regarding the impoundment of the water in an AONB, close to a RAMSAR site. Professor Emerman’s report clearly shows major concerns which must be addressed. In terms of impoundment in sensitive environmental contexts please ensure NIEA have considered the following:</p> <p>Environmental Degradation</p> <p>1. Hydrological Changes:</p> <ul style="list-style-type: none"> o Impoundments alter natural water flow, affecting river ecosystems, sediment transport, and water quality downstream. o Legal Precedent: The Water Framework Directive (2000/60/EC) mandates the protection of natural water bodies and their ecological status. Any project altering the hydrology must comply with stringent ecological standards. <p>2. Ecosystem Impact:</p> <ul style="list-style-type: none"> o Altering water levels can destroy habitats, particularly in sensitive areas like ASSIs and RAMSAR sites. These ecosystems depend on stable hydrological conditions to maintain biodiversity. 	<p>170</p>

o Case Example: Tarragona Dam Case (Spain): In this EU case, environmental groups successfully argued that a proposed dam would violate the Water Framework Directive due to its significant ecological impacts on a protected river system.

Pollution Risks

1. Chemical Contamination:

o Gold mining often uses chemicals like cyanide, which can leach into water bodies from impoundments, causing severe pollution.

o Legal Precedent: R v North Yorkshire County Council, ex parte Brown [1999] 2 AC 397 emphasized the need for thorough environmental scrutiny where hazardous materials are involved.

2. Heavy Metals:

o Tailings impoundments can release heavy metals into the environment, contaminating soil and water.

o International Case: Baia Mare Cyanide Spill (Romania, 2000): A dam failure led to cyanide and heavy metal pollution across the Danube River, resulting in significant environmental and health impacts. This case highlighted the need for stringent controls and monitoring of mining impoundments.

Hydrological Stability

1. Flow Regime Alteration:

o Impoundments can significantly reduce downstream flows, impacting water availability for ecosystems and human use. This is particularly true when this site is the highest groundwater vulnerability, where underground aquifers could disappear affecting downstream rivers, burns and wells.

2.

o Legal Precedent: The European Court of Justice ruling in C-461/13 Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland (Weser ruling) reinforced the need to maintain good ecological status of water bodies, ruling against projects that could significantly alter water flow and quality.

Climate Resilience

1. Carbon Sequestration:

o Impoundments can disrupt peatlands and other carbon-rich ecosystems, leading to the release of stored carbon and undermining climate goals.

o Relevant Legislation: The Climate Change (Northern Ireland) Bill 2022 emphasises the protection of natural carbon sinks.

Cumulative Environmental Impact

1. Integrated Impact Assessment:

o The combined effects of water abstraction, high radon levels, groundwater vulnerability, and protected statuses (AONB, RAMSAR, ASSI) create a compelling case against the project.

<p>o Legal Precedent: An Taisce (The National Trust for Ireland) v An Bord Pleanála [2015] IESC 10 highlighted the necessity for comprehensive EIAs that consider cumulative impacts.</p>	
<p>NIEA does not have the resources to independently review, evaluate, scrutinise and challenge reports provided by Dalradian. NIEA will not invest the resources or expertise to oversee or undertake the specialist surveys necessary to evaluate this planning application. Furthermore the plan is to transfer the final approval process to the Planning Appeals Committee as demonstrated clearly at the Pre-inquiry meeting in Strule Arts Centre. The DfI publicly admitted that it merely considers Dalradian’s application to meet Environmental “Minimum Standards”. This admission proves beyond any doubt that this application does not follow the precautionary principle and a public consultation is required. Given the gross failings and the conduct of the statutory bodies, not just at the pre-inquirybut throughout, this application must the refused and the overall planning application must be abandoned. Dalradian should then made a new single application with the correct information entailing all elements and not project splitting. Dalradian representatives appeared in front of the Environment Committee in 9th Oct 2014 where they advised the committee they had a consultant working on their planning application. https://www.niassembly.gov.uk/assembly-business/committees/2011-2016/environment/listen-again/09-october-2014/</p>	<p>170</p>
<p>regarding the people of the Sperrins AONB, the apparent dismissive disregard, in the planning documentation, for the local cultural heritage and reducing it to a perception of a few old stones here and there unlinked to people and place language and local economy is but a shallow, inadequate and unacceptable designation of the historical and current milieu in which we live. It completely misses the complexity and the richness of the mix that constitutes the cultural landscape throughout the beautiful Sperrins Area of Outstanding Natural Beauty (AONB) whose heart would be savagely damaged should any decision other that refusal of planning permission to these Planning Applications.</p>	<p>162</p>
<p>These waterways are important to us as is the aquatic life therein. These applications and the parent application do not evidence such respect coming from those involved with them. Here and there throughout the Application documents Dalradian refer to the documents being agreed with NIEA or based on instructions or advice from the Department and point to the number of planning meetings they have had with statutory bodies in preparation of the planning application documents. Given the failure to provide the public with the minutes of such meetings in contravention of the government’s commitment to transparency question will remain to be addressed. Thus the public is left with the role of being the voice</p>	<p>162</p>

<p>for the rivers and the burns, the salmon, trout and fresh water pearl mussels and of the watercourse whose headwater they propose to cut off and divert their flow, risking significant adverse impacts. Just because a stream has no name doesn't mean it has no function in the Foyle River System. Furthermore, all the Burns, streams named and unnamed are hydrologically linked to the SAC & ASSIs and therefore any and all development affecting a tributary of the protected rivers would also engage the Habitats Regulations. It is erroneous of Dalradian to propose that where any of these tributaries are not part of the SAC designation it avoids consideration under the Habitats Regulations.</p>	
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<p>The increases proposed by Dalradian in all flow conditions of the said waterways (average annual, monthly & low flow) have the potential to increase flood risks and result in out of banks flows, bank erosion and deterioration of ecological habitats. Dalradian appear not to accept this risk.</p>	162
<p>The documentation submitted with these Applications does not address the cumulative impact of all the essential & relevant aspects of LA10/2017/1249/F nor the in-combination factors impacting negatively downstream on legally protected waterways of the Owenkillev & Foyle River System.</p>	162

<p>The failure by the Application and associated documents to treat the damage to the peatland as a significant risk is a real flaw and undermines the possibility of such applications being approved. The context has changed significantly. The bogland is to be protected. It has a very important function in combating the current environmental and ecological crises our world faces today. This is not just a local but a global reality.</p> <p>“Let’s get this on the table right away, without mincing words: With regard to the climate crisis, yes, it’s time to panic..... We are in deep trouble...”</p> <p>Raymond Pierrehumbert, Prof. of Physics (Oxford) author of 2018 Intergovernmental Panel on Climate Change (IPCC).</p>	<p>162</p>
<p>Everything has changed with the new public awareness of the risks of climate breakdown and risk of flooding. We have witnessed the effects of this in the Sperrins and Faughan Valley in the extreme weather event of August 2017. Peat bogs are not only effective carbon sinks, but also important as natural flood alleviation because of the amounts of water they store. Dewatering them would have serious knock on consequences for flash floods and land erosion / destabilisation events. The recent Meenbog disaster on borderland with Donegal and its knock-on effects on the Derg will focus minds in Loughs Agency and DAERA as well as the public. In light of the new awareness all has changed: no longer must corporate powers be allowed to lobby or massage away the environmental damage of big mining. It is relevant to point to the findings highlighted in the very recent BBC Spotlight investigation on the crisis of pollution of Lough Neagh that not only did the multination processor of chicken, Moy Park, have in excess of 300 breaches of its Discharge Parameters but that none of these pollution incidents had resulted in actual prosecutions.</p>	<p>162</p>
<p>Considering the massive risks & environmental impacts associated with these applications and the parent Application the cumulative impact of the entire project needs to be considered thoroughly and any decision on the Applications must be governed by the Precautionary Principle.</p> <p>The documentation submitted fails to acknowledge the scale & range of the risks nor the gravity of the potential negative impacts on the Foyle River Basin. It’s as if the Dalradian Applications were marketing the proposal and focused on minimising the scale of all negative impacts & multiplicity of risks at play here. Dalradian presents an incomplete & imbalanced interpretation of the risk factors. It lacks objectivity and professionalism regarding negative impacts on these vulnerable and important waterways, home as they are to ‘Ireland’s only globally endangered species’, the fresh water pearl mussels.</p> <p>iv. The setting should be given central importance – the Sperrins AONB, the Owenkillow SAC, 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. No one in their right mind would consider putting a toxic goldmine & processing plant etc in such an environmentally sensitive setting.</p>	<p>162</p>

<p>pressure. Some customers over the past few days are already experiencing this, especially those on high ground. We are asking our customers to help us, especially over the next few days where the temperature will continue to be above 20 degrees". (Belfast Telegraph 31 May 2020)</p>	
<p>Water Framework Directive (WFD) requires river morphology to be protected to meet the ecological objectives of the Directive and for watercourses to maintain good standard. Because of the uncertainty and of the seriousness of the risk to the water supply involved with these Applications a decision to grant these Applications would be open to a challenge of being in contravention of the WFD. The question of the rights of the Pollanroe Burn to its water which Dalradian would have captured in its 'Clean Water Pond' in a time of prolonged drought has not been dealt with in the application documents. If these permissions are granted what about the small fry in the Burn? Has the Burn the right to its water as Brehon Law would propose? Have the freshwater pearl mussels the right to the naturally clean water – with no addition of such industrial discharge, as the Owenkillev Water Management Plan would demand? These and other questions arising regarding the Owenkillev and Owenreagh Rivers need to be addressed in advance of any decisions. Similarly, in view of the limitations on the public water system and the undoubted vast additional pressures that the various drawing off the water system the Dalradian Gold Applications involve: in the event of shortages what system will decide who is priority and what will be the guiding principles? Huge question needing investigation and transparency up front.</p>	<p>162</p>
<p>Transboundary Consultation obligations and Aarhus Convention Obligations We submit there has been entirely inadequate notification in respect of engagement of the public in the Republic Of Ireland on this matter, and indeed in respect of the public concerned, having and interest in and likely to be affected by this activity. The fact that a few eNGOs and other members of the public may make submissions to this matter – does not suffice for the purposes of notification and consultation obligations arising under both conventions – and has operated to discriminate against members of the public by virtue of their citizenship and domicile. It is entirely unclear at this point, what if any engagement there has been with the Irish authorities in respect of Espoo Convention obligations (UNECE Convention on Environmental Impact Assessment in a Transboundary Context) to which Ireland and the UK are both Parties. Irrespective of any failure by Ireland in that regard – obligations still pertain to the UK authorities to ensure that non-discriminatory participatory rights are observed, in accordance with Articles 3(9) and Article 6 of the Aarhus Convention. We submit that the activity is one which clearly falls within the scope of Article 6(1) of the Aarhus Convention.</p>	<p>174</p>

<p>Remediation and “deconstruction” impact assessment We submit there is an entirely inadequate approach to remediation and “deconstruction” impact assessment in the application.</p>	<p>174</p>
<p>Submission of Emerman Report. Again, it only serves to strengthen the argument that any extraction and impoundment license being granted to Dalradian Gold on the basis of information supplied by the company from their original application, an application has officially been deemed as refused by your office, that data is not only out dated but is also totally insufficient in its contents to allow your departments to return any response other than a refusal of these licenses. Failure to deem these applications as refused would open up your decision to legal proceedings as the evidence current available is insufficient and outdated along with the legal requirements for public bodies to prioritise the precautionary factor consideration in decision making in relation to projects of this type and scale.</p>	<p>185</p>
<p>The recent happenings when DAERA/NIEA misled the PAC and the public at the Pre-Inquiry meeting on 20th March 2024, reinforced my concerns about the Government Departments’ commitment to a duty of candour, transparency and accountability, and reiterated the fact that this is not the first time that officials have been disingenuous/deliberately misleading. In the aftermath of the broadcast of The BBC Spotlight documentary programme 'Gold Rush: The War in The Sperrins' DAERA officials were summonsed to attend an AERA Committee Meeting (27th January 2022) to explain/clarify their oversight of Dalradian. During the course of this meeting the clearly uninformed Committee were misled by some of those same officials, or to echo the PAC Commissioner at the pre-inquiry meeting, "it appears to us that the Department’s representative may not have given entirely accurate information." There are serious questions over the Department's impartiality in matters concerning Dalradian, which are not only historical, but are reflected in the various calls to proceed with the Public Inquiry despite these refused licences, not least the quite ignorant and almost threatening tone of the NIEA letter to the PAC dated 2nd May 2024. Amongst the disturbing content of this letter is the claim that " the Department will seek a rapid hearing of the referral on the new applications" - again highlighting the preferential treatment given to Dalradian, and dismissing the impending objections to their applications, of which this e-mail is only one. The seeming willingness of the Department to approve these applications, before receipt of all communications objecting to (or indeed in support of) raises questions over the whole process, and smacks of an embarrassed attempt to make up for their role in inadvertently refusing the previous applications. Who (or what) is the Department here to serve? What accountability/actions have been taken in relation to the individual/collective "misleading" of the PAC and process to date? These are</p>	<p>219</p>

<p>questions which remain unanswered - in the aftermath of RHI and the lack of confidence in political institutions locally and globally, these issues have to be addressed. Are the Nolan Principles still applicable?</p>	
<p>Sufficient. The water supply for each person must be sufficient and continuous for personal and domestic uses. These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene. According to the World Health Organization (WHO), between 50 and 100 litres of water per person per day are needed to ensure that most basic needs are met, and few health concerns arise.</p> <p>Safe. The water required for each personal or domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health. Measures of drinking-water safety are usually defined by national and/or local standards for drinking-water quality. The World Health Organization (WHO) Guidelines for drinking-water quality provide a basis for the development of national standards that, if properly implemented, will ensure the safety of drinking-water.</p>	<p>270, 274</p>
<p>Following on from the truly shocking revelations which has come out over the past few weeks/months concerning the department's handling of the abstraction licenses. You have to sincerely consider that there are many examples of the failure to use the precautionary principle in the past, which have resulted in serious and often irreversible damage to health and environments. Appropriate, precautionary and proportionate actions need and should be taken now to avoid even more plausible and potentially serious threats to health as a result of every aspect of this toxic industry.</p>	<p>270, 274</p>
<p>I don't believe in abusing anyone, but the past and present scenario is unacceptable. There is those who believe they are untouchable; do they care about protecting others? NO Do they care about the environment? NO, they neither care about human or animal life, they destruct and destroy, they abuse, them and big industry go hand in hand, they could be described as a protected species. There is serious risk of breaching a fundamental duty of care, thus attracting grave liability</p>	<p>270, 274</p>
<p>Dalradian say there is no dangers associated with their proposed mining camp application...THEY LIE they know the harm their toxic application will cause. Why should we be forced to live this way? All of these companies claim to be so ETHICAL. This is not ethical, it is CRIMINAL.</p> <p>People from further afield ask, "What is it like living in such a beautiful untouched rural area" so I tell them the TRUTH. It is a living HELL. There is no other hell like this you can experience on this earth. You work</p>	<p>270, 274</p>

<p>hard during the day with your job and are so tired in the evening. You go to bed and rest and hope to get a good night's sleep, so you feel refreshed and have energy to do your job the next day. But you can't. You cannot get the sleep you need for your body to regain energy to function. I am physically and mentally exhausted, and extremely worried that my new home will not be safe to inhabit, that our future is under threat. You get up the next morning feeling like a truck hit you. You are so tired, and your brain/head is exhausted you are so sleep deprived, you are worried sick, what is it going to be next?</p>	
<p>Where a Public Body proposes to carry out or authorise any operation(s) likely to damage the features of an ASSI/RAMSAR , the Public Body is required to submit an application for assent to the Department. Further details provided in respect of Public Body duties for the protection of ASSI and RAMSAR.</p> <p>Where a competent authority proposes to carry out or issue any form of authorisation for works or activities where the site in question is designated as being part of the UK national site network, the works are subject to the requirements of The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended). To this end a Habitats Regulations Assessment (HRA) is required to be undertaken prior to carrying out or issuing any form or permission or authorisation. While it is not possible to outline the entire legalities of The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) and the assessment succinctly, in broad terms the HRA should seek to inform the design of the proposal and is legally required to ensure the protection of UK national site network against adverse impacts on their integrity and I believe that approval of the current application by Dalradian Gold works in contravention to these policies and the precautionary principle. The HRA should be submitted as an accompaniment to any application for assent or under Article 40 outlined above.</p>	318
<p>The precautionary principle must be rigorously applied, given the potential significant impacts on local ecosystems and the broader environment. This principle is crucial to preventing irreversible environmental damage from activities whose impacts are not yet fully understood. The water balance model's assumption that mine water ponds will always maintain sufficient freeboard to handle a 1 in 1000-year storm event heavily relies on the operational efficiency of the water treatment plant. Any failure or reduced efficiency in this system could compromise flood storage capacity, leading to serious environmental consequences.</p>	358
<p>Operational assumptions presented in the document are overly optimistic. The expectation that the water treatment plant will always function at peak efficiency during extreme weather events does not account for real-world operational challenges, maintenance issues, or unexpected failures. These factors could significantly impair the system's ability to manage floodwaters, posing environmental risks. Additionally, while the water balance model employs stochastic inputs and Monte Carlo simulations, the predictions are still based on assumptions that may not fully capture real-world complexities.</p>	

There must also be allowances for the current plant efficiency rejection rates and membrane efficiency, this should have been done by a stepped analysis of the plant through-put due to the membrane conditions from usage and fouling from the heavy filtration which takes place due to the nature of the medium, which is been processed, mine waste product which will be high in particulates and fouling matter. This could be done for example by reviewing the ability of the plant to process the required volumes at 90% efficiency to a suggested 40% efficiency, these can only be suggested as there is no mention of what maintenance schedule would be in place for membrane replacement within the Reverse osmosis plant which if working to a precautionary principle would have been included or sought by the department because it is has such critical effect on the safety of their contingency plan in the event of extreme or for that matter moderate weather events. It must also be noted that these events would if not mitigated correctly present a highly probable risk to life due to the volumes of water involved and the proximity to roads and homes in the area.

In light of these concerns, I strongly urge the Department to reconsider the current processing timeline and extend the review period to allow for detailed public and expert consultations. It is imperative that all evaluations are conducted transparently, incorporating the latest environmental data, and adhering to current legal standards. I trust the Department will address these objections with the seriousness they warrant and ensure the evaluation process for these applications is thorough and reflective of best practices in environmental stewardship.