

Ferna Vagg
Huntingfield & Sunshine Stations
Nulla Rd, Wentworth NSW 2648

Objection to the Copi Mineral Sands Project

My name is Ferna Vagg. I am writing to STRONGLY **OBJECT** to the Copi Mineral Sands Project.

I am the occupier of Huntingfield and Sunshine stations which is currently referred to in the Copi EIS as residences R1 and R5. Huntingfield and Sunshine Stations are owned by my husband, we run the farm business together. Almost half of this Copi project is planned on Huntingfield and Sunshine stations, we are directly impacted. We are also severely indirectly impacted if the mining only occurs on the neighbouring property (Warwick Station) and not on our property. The mine pit is 1.3 kms away from our house.

Background

My husband, Shane Vagg and our 2 young children and I live on these stations. We breed and sell goats in our business and our family has done so since 2017 on these stations. Goat breeding requires particular infrastructure and management. Significant work and improvement has been made to our stations to run this successful business. These stations are covered with items defined in the Mining Act 1992 (NSW) as "agricultural land" and "significant improvements" in relation to which we have exercised our rights under the Mining Act to protect. The consequence being that a mining lease may not be granted over the land upon which is situate this agricultural land and our significant improvements.

My husband and I, as owners and occupiers, object to the development described in the development application number SSD-41294067 and set out in the Copi EIS dated May 2024. We object to the project on the basis of the noise, dust, light impacts which the project will impose on our amenity and on the amenity of the animals upon which our livelihood is based.

Require a condition in any development consent

Notwithstanding the statements of RZ resources concerning our property Huntingfield and Sunshine (R1 and R5) in the EIS (page 2-17, section 2.2.31, dot point 3: *'If no agreement is reached mining would not be undertaken on that property'*), we request there be a condition imposed that:

'RZ Resources must not carry out any development work on either or both of Sunshine and Huntingfield stations until after the settlement of a purchase, lease or licence of these properties from the owner'.

This is a condition similar to that imposed in the Ashton Coal Operations Pty Ltd in its South East Open Cut Coal mine following the decision of Pain J and upheld by the NSW Court of Appeal decision in the case Ashton Coal Operations Pty Ltd v Hunter Environment Lobby Inc [2015] NSWCA 358.

Review of the EIS

Reviewing this EIS of several thousand pages in 28 days places my family and I at a distinct disadvantage. It is unclear to me whether the entire EIS is based on mining on our property or not. As an example, on the one hand maps and definitions in figures 1.1 and 1.3 show the deposit and define the "Mine Site" as including the mine on our land. Yet in section 2 on page 2-17, RZ says it will not be mining on our land without our consent. We have not given our consent and at this point in

time do not intend to give our consent. In the economics section Appendix 15 it is not clear if the analysis is based on the definition of "Mine Site" in Section 1, ie including our land. And there does not appear to be a breakdown of the cost benefit analysis of the project if we do, or, if we don't give our consent. I would have thought there must be an economic analysis of the project just on Warwick (given we have not given our consent) but that is not clear given these definitions. This would appear to be a fundamental question to be asked not just about the economics but about the entire EIS, ie was the environmental assessment only on Warwick? We have not been given a fair go. We have been given very little information on the project before the release of the EIS. This process is not consistent with the laws of natural justice.

I am concerned about the poor quality of the EIS submitted by RZ Resources. There is a real lack of detailed information. There are many 'flexible elements,' and preliminary plans that are subject to change. As a result I cannot properly assess the impact it will have on my family's health, home, business, and our environment.

I have concerns about living 1.3km from a mine pit. The noise, dust, light, and radiation will be present in our lives daily for 10-17 years. This **WILL** have negative consequences on my family. RZ Resources has not made plans to mitigate these risks to our health from their mine, any mitigation plans have not been communicated to us.

I am concerned about the plans to pump highly saline water into ponds on top of the ground. The potential for harm from this action is significant. The mine plans to pump any seepage back into the pond. But they have not considered how they will control the movement of that salt water underground and into surrounding top soil. I fear what the impacts to the surrounding land and water bodies will be from this project. I witnessed RZ Resources pump highly saline water on top of the ground on our property. This resulted in many trees killed. Salt deposits remain on top of the ground where they did this.

I am concerned about the limited biodiversity studies conducted on our property. We live here and see a huge number of different plants and animals at different times of the year. The studies I have seen for the Copi project are limited and have not identified many animals that my family and I know live in our environment. We had a local bird watching group visit our farm and record 58 species in a few hours. This did not include the owls, bats and nightbirds that we see on our farm.

I feel that RZ Resources has a poor social licence. My husband bought these stations from his father. His father had already agreed an access agreement with RZ for exploration. For almost a whole year after we purchased the stations RZ continued to explore on the stations without an access agreement contrary to the Mining Act. We did not know this until later. My family has many examples of RZ Resources having poor regard or care for the impact they have to us. Please see my husband's (Shane Vagg) objection for many examples. Some issues we have experienced with RZ include RZ staff bringing and firing a firearm on our property, hundreds of examples of trespassing across our property to get to Warwick for months without our consent or complying with the Mining Act until we had to call the police, attempts at intimidation by telling us they would compulsorily acquire our farm and we had no choice, numerous continuous breaching of the access agreement for example by repeatedly going into and remaining in no go zones, preventing our stock access to water, creating roads to drill sites then telling the Regulator that we created those roads so RZ didn't have to rehabilitate them (We thought it was obvious that these roads had been created by RZ as they align with the drill sites. There are approximately 80kms of these roads. The regulator did not think so).

RZ have sought to unilaterally vary the agreed access agreement by using s157 of the Mining Act by saying that my husband sought a variation which he did not. We have objected. Despite this the arbitration continues. RZ have failed to say what variation it is seeking. Meanwhile we are dragged through this s157 process against our will and have to pay our own costs. It appears to us outrageous that RZ can unilaterally vary an agreed access agreement and make us pay for it. I believe that RZ's actions are an abuse of process but we can't get out of it.

Does RZ plan to share their profits with the community? RZ has caused us many thousands of dollars in legal fees simply to protect ourselves, our business and our property. They certainly have not offered to pay our legal fees incurred for their project which may not even go ahead. Do they plan to have a community benefit fund to support local groups and organisations? I have not seen one. Have they even thought about this? My experience is that RZ has a poor corporate culture. RZ's lack of consideration to my family living in close proximity to the mine, and a lack of attention to the surrounding community is evident to me. RZ have not considered the project impacts to our drinking water supplies or those of our neighbours.

I have no experience commenting on EIS' so I spent some time reviewing the Goschen Mineral Sands project planned in Victoria. The Goschen project plans to mine the Loxton Parilla Sands deposit, as does the Copi project. I have tried to compare the EES for the Goschen project with the EIS for the Copi project. The Copi EIS lacks details contained in the Goschen EES (for example detailed radiation report, salt balance report), making me believe the Copi EIS is an inferior quality EIS. Expert reviews of the Goschen EES raise serious concerns about the water, radiation, noise and air quality risks anticipated with the Goschen mineral sands mining project. I anticipate that the Copi project will have similar risks to the Goschen project, given the similarity in sand deposits.

Phillip Macumber's review of Hydrogeological Aspects of the Goschen project (March 2024) discusses the risk of contaminated mining waste being a source of potential contamination to surrounding ground and surface water. The Macumber report notes well established carcinogens from heavy mineral deposits associated with ilmenite. The report discusses the presence and ready availability of metallic elements and leachates that would enter the groundwater system in the Goschen project, this has to be similar to what will occur in the Copi project. The report notes that groundwater flows from the Goschen mine area toward Lake Tyrell. I understand that groundwater in the Copi project area flows toward nearby Lake Victoria. I am concerned that these risks have not been properly considered in the Copi project.

I am concerned about that rehabilitation of this project would never be completed. RZ is a new miner, they have not successfully delivered a mine or rehabilitated a mine before. There are more experienced miners who have been unable to successfully rehabilitate mines. A recent article interviewed Dr Lian Sinclair who noted that there are "very few successful examples" of former mine sites being returned to healthy natural ecosystems in Australia (ABC Mildura – Swan Hill, 22/04/2024).

I am concerned about the impacts this project would have in our local communities. The EIS notes there were 50+ rentals available in the Wentworth Shire, so there is a low risk that the mine will cause housing pressure. A recent article interviewed Mildura Real Estate agent Ryan Tierney (ABC Mildura – Swan Hill 28/05/2024). Mr Tierney noted that at one stage, he had more than 60 applicants applying for one rental. Mr Tierney was quoted saying *"Every human deserves a home but if we don't have stock, we don't have places to rent,"*. Mildura and Wentworth rentals are managed by the same real estate agents, I understand there is already housing stress in our area. The project will add to that pressure in my view.

Points I would like to object to, or comment on from the EIS

EIS page 6-212- last paragraph: *'In light of the above, there would be positive impact on agriculture as a result of the Project.'*

The above statement is highly speculative, overly optimistic, and in contrast to many other statements in the EIS. This is a laughable statement. The EIS states that the rehabilitated mine would not be suitable for grazing, which would include other agricultural pursuits.

EIS page 6-213/214: *'RZ Resources has prepared a Preliminary Radiation Management Plan for the Project (RZ Resources, 2024).The Plan has been drafted based on information available at the design phase of the Project and would be updated during commissioning of the Rare Earth Concentrate Plant when the performance of the Plant and the nature of the materials produced is more fully understood.'*

There is no detail in this plan. The plan would be updated once the rare earth concentration plant was commissioned. This is 'putting the cart before the horse'. How can there be so little detail about the rare earth concentration plant and the radioactive material it will process?

EIS Page 6-215, first paragraph: *'The Applicant determined the uranium and thorium content of the ore using XRF methods as follows.*

- *Uranium.....2ppm or 0.0002%*
- *Thorium8ppm or 0.0008%'*

There is no information on how these numbers were produced. How were these figures determined? How many samples were tested? How can this information be peer-reviewed with the lack of data provided? Where is the radiation report? The detail on the handling of the radioactive material is so vague and limited that one cannot be sure what the project plans to do with this product.

EIS page 6-216: *'The following management and mitigation measures would be implemented to manage radiation related risks associated with the Monazite Product. The proposed measures represent the full range of reasonable and feasible mitigation measures taking into consideration the fact that the Rare Earth Concentrate Plant has yet to be constructed or commissioned.'*

There is no mention of monitoring baseline radiation levels at our family home located 1.3km from the dredge/mine pit. I am extremely concerned about the radiation risks to our family and the greater community. I am concerned about the radiation risk to our livestock and the native animals that inhabit the area. This risks our ability to provide healthy, uncontaminated livestock to the domestic and international markets.

EIS Page 3-49, section 3.5.4.5: *'Monazite Circuit. The magnetic fraction from the RERMS would be processed using an induced disk magnetic separator which would separate the material into the following fractions.*

- *Magnetic Fraction 1 (the most magnetically susceptible) – which would be transferred as reject to the dredge pond or active rejects area at the rear of the dredge pond.*

- *Magnetic Fractions 2 and 3 – which would be transferred to a series of shaking tables, with the more dense fraction transferred to the Monazite Product hopper before drying and packaging into 1t bulk bags or 200L steel drums prior to containerisation and transfer from site.*

- *Magnetic Fraction 4 (the least magnetically susceptible) – which would be transferred to the Wet Non-magnetic Circuit.'*

There is so little detail about this process- 3 dot points only. What dust mitigation will occur at these stages? What is the proposed layout and design of the rare earth concentration plant? How far will this be located from our house? Will this be in an enclosed facility? There is so little detail about a plant that will concentrate and extract radioactive materials.

EIS Page 3-51:

3.5.6 Flexible Elements

Table 3.5.2 presents the processing-related flexible elements that cannot be described with certainty at this stage of the Project, together with clear limits on the flexibility sought and a justification of each element. Elements that may be smaller or with lesser impacts than that proposed are not described.

Table 3.5.2
Flexible Elements – Processing Operations

Flexible Element	Limit on Flexibility	Justification
Processing procedures, plant, equipment and reagents	No additional substantial plant or equipment other than that described. No significant additional emissions of noise, dust, gases or odour.	Processing methodology, equipment and techniques are continually evolving and being optimised to maximise recovery of contained heavy mineral or the efficiency of processing operations. Minor adjustments to the processing equipment or process flow sheet used may be identified and implemented throughout the life of the Project.

The applicant has provided very limited information on the processing that is proposed. They admit that there are many 'flexible elements'. We cannot know the risk to our health, family, business and livestock from the very limited information provided. The limited information provided is consistent with a junior mining company with no previous experience operating a mine. The limited information provided shows no effort has been put into describing this process. This is a plan to make a plan relating to radioactive material!

I read Dr Harry Watts' Expert Witness Statement on Radiation for the Goschen Mineral Sands project (March 2024). Dr Watts notes on Page 8 (para 3 and 4): *'It should be emphasised, however, that the rare earth mineral concentrate is a fine material that may produce a lot of dust. Engineering controls for total containment are necessary. In addition to storage of radioactive materials on site, there will be movement of radioactive materials throughout the plant from the flotation cells to the sulphation baking kiln to the leaching and precipitation units, to the mixing units. It is necessary to encapsulate or isolate the materials in these processes from the environment'*. The lack of consideration and mention of these factors in the Copi EIS terrifies me. These processes will be occurring in close proximity to my family home, and there is no detailed plan.

EIS page 7-26, first paragraph: *'The Project would provide a stable and significant source of employment and economic activity for an extended period. Should the Project not proceed and the existing Snapper and Ginkgo Mineral Sands Mines close as currently expected in 2026 and 2025 respectively, there would be a substantial loss of well-paid employment opportunities in Wentworth LGA and surrounds, with the associated social impacts that would result.'*

If the Copi mine proceeds, at the end of the project, the employees would find themselves in the same situation as the Snapper and Ginkgo employees. With 'a substantial loss of well-paid employment opportunities'. If the Copi mine found that the project was no longer viable due to commodity prices or other factors, the employees would be in the same predicament. The employment opportunities offered by the Copi project are not sustainable long term, they will come to an end causing significant disruption to those employees and the greater community. Having lived in rural mining communities in central Queensland, I have seen this firsthand. In the boom times, house prices skyrocket and there are abundant jobs, in mine closure times, houses lose significant value and there are large job losses. These factors affect the local community, from staff and student numbers at local schools, nurses in the local hospitals, and many flow on effects throughout the community.

EIS Appendix 11, page 16: *'The Applicant has consulted with surrounding residents and no objections to out of hours construction operations have been raised.'*

I would like to note that my family strongly objects to the out of hours construction. We will be living 1.3km from the mine, works will continue 24 hours a day, 7 days a week for at least 17 years. I am very concerned about the effects the noise and vibrations from this project will have on my family and our health.

EIS Appendix 11, page 57: *'The results of the Noise Impact Assessment (demonstrate that construction phase onsite construction activities) and operational noise levels comply with the relevant ICNG, NPI and VLAMP criteria for all assessment periods at the most affected sensitive receiver locations. It is noted that receivers R2, R4 and the Mine Camp are Project related receivers, while R5 is a derelict residence that is unoccupiable.'* and: *'In summary, the Noise Assessment supports the Environmental Impact Statement for the Project without ameliorative measures being required.'*

I would like to note that R5- our Sunshine house might be derelict in the author's opinion, but this is not our opinion, we will renovate the house in the future. In the above conclusion statement, there is no mention of our family home R1 – Huntingfield, which is 1.3km from the mine pit. I beg to differ that the project noise and vibrations will be so low risk and insignificant for our family. We live in a remote area, we have a very low level of background noise currently. The conclusions for this Noise Impact Assessment are comically optimistic, there is no common sense here. Do you have a social license if you plan a mine 1.3km from a family's home, you plan to operate 24/7, and don't offer any mitigation for the noise you will produce?

I read the expert report by William Leslie Huson into the Goschen project on noise (March 2024). Mr Huson predicts *'significant change to the acoustic environment that neighbours to the Project will experience and this will be an adverse effect on their current acoustic amenity'*. I predict this would be the same for our family living 1.3km from the Copi project. Mr Huson found flaws and inaccuracies in the assumption of the Goschen noise impact assessment, I believe there are many flawed assumptions in the Copi noise impact assessment.

The Goschen EES measured **actual** background noise levels at 4 locations (Chapter 11, Noise, November 2023). The Copi EIS **estimated** background noise levels (see below).

Copi EIS Page 6-167: *'the following Rating Background Levels (RBLs) were adopted by MAC (2024) for the purposes of establishing relevant noise criteria for the Project.'*

- Minimum Daytime RBL..... 35dB(A)

- *Minimum Evening RBL* 30dB(A)
- *Minimum Night RBL* 30dB(A)

The Goschen EES measured **actual** background noise limits to be much lower than those listed (above) in the Copi EIS. The Goschen project is planned in a more populated area than the Copi project. This would generally be associated with higher background noise in the Goschen project area. I believe the background noise levels in the Copi project are flawed and inaccurate.

Please see the below table taken from the Goschen EES (page 11-7, Chapter 11 Noise, November 2023). Note the actual background noise levels measured are lower than the predicted levels used in the Copi EIS.

Existing background noise levels were found to be generally low. Noise limits were determined in accordance with the Noise Protocol for the earth resources premises where the noise sensitive area is in a rural area (farming zone) **Table 11-3** also shows the resulting operational noise limits ($L_{eq, 30min}$).

Table 11-3 Measured Background Noise Levels (based on $L_{A90, 1h}$)

Measured Background Noise Levels (based on $L_{A90, 1h}$)				
Based Period	2. Thompson Rd Average/Lowest	3. Jobling Rd Average/Lowest	4. Bennett Rd Average/Lowest	5. Quambatook M.P.M.Rd Average/Lowest
Day	28 dBA / 23 dBA	34 dBA / 26 dBA	31 dBA / 25 dBA	34 dBA / 24 dBA
Evening	26 dBA / 20 dBA	39 dBA / 28 dBA	33 dBA / 24 dBA	30 dBA / 20 dBA
Night	23 dBA / 20 dBA	30 dBA / 22 dBA	26 dBA / 21 dBA	25dBA / 18 dBA
Noise Protocol Noise Limits ($L_{eq, 30 min}$)				
Period	2. Thompson Rd	3. Jobling Rd	4. Bennett Rd	5. Quambatook
Day	46 dBA	46 dBA	46 dBA	46 dBA
Evening	41 dBA	41 dBA	41 dBA	41 dBA
Night	36 dBA	36 dBA	36 dBA	36 dBA

Air Quality: When reviewing the Air Quality of our home environment, the Copi project has used data from 2019 as a baseline. 2019 was one of the most severe droughts on record in our area. Using this data as a baseline is seriously flawed. The air quality at times in 2019 meant we had to shelter inside because of poor visibility from many severe dust storms. The 2019 data does not represent the usual air quality for our home area. The 2019 data is outlier data, but is being used a baseline data.



The above picture shows the 2019 drought conditions at Huntingfield. This photo was taken on 16/11/2019 at Huntingfield.



The above photo was taken on 27/12/2019 at Huntingfield. At the time there were many whirly winds. Some days you could see 7 whirly winds at the same time when we looked out over the horizon from our farm. 2019 was exceptionally dry and dusty.



The above photo was taken on 08/02/2020, it shows a dust storm rolling toward our home (R1/Huntingfield). Dust storms were frequent at the end of 2019, sometimes we had more than one duststorm a week after prolonged drought conditions.



See above photo taken 13/11/2022 at Huntingfield. This shows that 2019 was not 'usual'.

2019 was not a 'usual' year, and does not represent 'normal' conditions or baseline air quality.

EIS Appendix 12, page 31: *'Data from the year 2019 have been selected for use in the AQIA to provide an approximation of 'representative' conditions surrounding the Mine Site.'* As you can see from the conditions in the photos, 2019 was an extreme drought, one of the worst on record. And the EIS has used the air quality data from this time as background data.

I reviewed the expert report by Peter Ramsay on the Goschen EES of the air quality impact assessment (March 2024). Mr Ramsay notes that the Goschen EES *'predicted cumulative impact on heavy metal concentrations in rainwater is likely to be an underestimate. Regardless of the potential underestimate, the impacts from the proposed mine and mineral processing facility may exacerbate an existing concern regarding the heavy metal concentration in rainwater'* (page 16). I don't believe the Copi EIS considered the air quality, dust or heavy metal concentration impact to our rainwater supply. We are completely dependent on rainwater for our drinking water at our Huntingfield house (R1). We also collect rainwater off various sheds and the Sunshine house (R5). This does not appear to have been considered in the Copi EIS. Our stock drink rainwater captured in our dams, they would also be exposed to any toxins/pollutants that the project would produce. Our dams provide drinking water for many native animals as well, some threatened and endangered.

Summary

I have found this whole process of dealing with RZ Resources to be detrimental to my physical and mental health. The impact RZ has had on myself, my husband and my children is unfair. Trying to review the EIS is extremely stressful. We had 28 days to review a document of several thousand pages, and try to articulate the impact it will have to our family and business. RZ Resources has had years to prepare these documents, and has communicated very little information to us in those years. Most of the EIS information was new to us. The process disadvantages us and is unfair. I would like to say that the information contained in my objection is in addition to the information my husband, Shane Vagg submitted in his objection. I have not listed all of my concerns in this objection, there just hasn't been time to do so. I am concerned about many issues relating to the project. I will continue to review the EIS and will certainly find further concerns and reasons to object to the project. I plan to voice and raise further concerns after the submission period closes as these come to my attention.

If this project receives approval I am requesting the condition that *'RZ Resources must not carry out any development work on either or both of Sunshine and Huntingfield stations until after the settlement of a purchase, lease or licence of these properties from the owner'*. I think this condition should be imposed on any land not owned by RZ Resources, before any mining or project-related works commence.

In my opinion RZ Resources is not a fit and proper applicant to run a project such as the Copi project. Their existing track record, and their treatment of my family are not ok. The EIS does not give me any comfort, only questions and fears. The lack of details about the handling of radioactive elements, the rare earth concentration plant, heavy metals, highly saline water and other factors is very concerning. My family and I live in a beautiful environment, we care for it, we work in harmony with the land. I fear this will be lost, and the animals and plants that live here with us will be lost and harmed irreversibly. I don't believe RZ has the credentials or social licence to run a project like this. I ask the planning panel to consider this project and its associated risks thoroughly.

Thank you for taking the time to read my objection.

Sincerely,

A handwritten signature in black ink, appearing to be 'FV' with a stylized flourish.

Ferna Vagg