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Dear NSW Planning

I am a nearby resident and farmer who lives about 5km to the north west from the center of the proposed McPhillamys gold mine. I have got an Associate Degree in Civil Engineering and I have previously worked for a local council Engineering for 7 ½ years. I have also got my own welding and fabrication business as well as running the family farm.

My great, great grandfather came to the area straight from England in the 1860's. I live on the family property "Stonehaven" which was purchased by my great, great grandfather in 1903. This property has remained in the family since then and I am now the 5th generation to farm this land. Stonehaven is still the original size was when it was purchased and there have been many generations and families raised since. Since then a lot has changed and I am one of the only descendants still living and farming in the area. The farming land around here is some of the best farming land in Australia and during the current drought it is still reasonably green, we are still farming as normal but at about 50% capacity. My parents are farming up at Narromine on properties where they moved to in 1976.

They moved away from the area then because of the new proposed city which was going to be built at Vittoria between Bathurst and Orange, which was about 5km to the north of this property. This proposed city was all planned and ready to go ahead but they could not find a good local water source for the proposed city of about 100 000 people back them.

I grew up at Narromine on the family property where I complete my education and a welding apprenticeship. I worked in the area for about ten years and I moved down to Stonehaven about 12 years ago after my grandfather became ill and was not able to manage the property anymore.

Stonehaven is now a cattle trading farm in it is the green backstop to the family properties at Narromine which have been crippled by the ongoing drought. The property at Narromine is nearly completely de-stocked, no cropping and haven't made much income for the past three years.

The family property here at Stonehaven is supporting three families and we are not receiving any sort of government support.

One of my great, great grandfathers son's owned the property "The Dungeon" from the early 1900's until the 1950's. This property had its name change to "Koomoorang" and covers about half of the proposed mine site.

I do not support the proposed goldmine for the following reasons:

1. **Bore water:** During the dry times here, we are solely reliant on our own water supply. Although there has been enough rainfall here to sustain grass growth there has been nil runoff and the creeks haven't flowed for nearly three years. Look at the situation Orange City Council is at with level five water restrictions, with the possibility of level six in the near future. Therefor we have two small bores on the property which were put down in the 1982 drought to ensure a good water supply. These two bores are still in operation where they supply every paddock with a secure water supply. This water also supplies the two houses on this property with a secure water source. This water is starting to get harsh and hard and is no longer fit for drinking water wit it is fine for everything else. These two bores are essentially the only thing that keep our family farm still in operation during this drought. I believe that if the mine is approved it will greatly affect the underground water supply in this area. I have worked on properties around Cadia Gold mine and they have proof that the mine has dropped bore levels up to 15 km from the gold mine. I don't believe that Regis's modeling is correct and if their modeling is not right it would be irreversible, and the water system would never be the same again.
2. **Spring water:** This area has a lot of natural springs (hence the names Spring Hill, Spring Terrace and Millthorpe, originally named Spring Grove). Stonehaven has a small parcel on the Eastern side of Guyong Road. This parcel has three creeks flowing through it and the catchment area spreads from Vittoria to Millthorpe which is a considerable size catchment for this area. During July last year the springs opened up and one of the creeks was running full. This creek is fed from land which lies in and around the proposed tailings dam site. Regis has stated that the mine will not affect the local springs, I don't believe this information. If the mine is approved who is responsible for fixing the irreversible damage to local waterways.

Please find attached photos of the creek flowing on 31st of July 2018, all water is from spring fed flows around the proposed tailings dam site.





Please find attached photo of empty dam on 2nd of April 2018.



3. **Traffic:** My next biggest concern is traffic and basic design standards for local roads. Both houses on this property are built approx. 100 m off Guyong Road, both entrances are on top of a crest and on a sweeping bend. There is approximately a 100m sight distance on this bend to our main entrance and we have semi sized trucks regularly entering and exiting the property. When I moved down here 12 years ago there would have been lucky to be 100 vehicles go past a day now there would be approximately 100 in an hour throughout the peak morning and evening times.

When there is an accident on the Mitchell Highway between Vittoria and Bathurst and the Mid Western Highway between Blayney and Bathurst, the Guyong Road is used to divert all

highway traffic past our houses. This volume of traffic could be up to approximately 1000 vehicles per hour, depending on the time of day. It only happens about once a year but it can last up to four or five hours until the road is cleared.

Guyong Road between Vittoria Road and the Mid Western Highway has some extremely sharp bends, concealed driveways and dangerous intersections at both ends. Guyong Road is prone to flooding and can be closed up to a week at a time in peak floods. It was closed for about three weeks in 2016.

The closing of Dungeon Road is another concern. This would put more traffic on Guyong Road, if Guyong Road is closed for some reason this would push all the traffic through Millthorpe. Regis has stated that there will be minimal or no effect on traffic, I do not believe this will be the case.

This is a picture of Guyong Road taken 26th December 2010 in a flood. Guyong Road can be seen going through the tall Poplar trees on the right.



This a photo of the snow taken on the 10th of August, 2019.



4. **Fatalities:** There has been a lot of fatalities on the roads in this area in the 12 years I have been living down here. If the mine is approved all of the traffic from Orange will have to travel through Millthorpe and Blayney. There has been at least 6 fatalities on the roads in the past 5 years or so, 2 between Orange and Millthorpe, 2 between Millthorpe and Blayney and 2 between Blayney and the proposed mine entrance. This is a high number for a 35 km stretch of road. Heading from the Guyong Road to the mine site you would pass at least 3 fatality sites on about a 10km journey. Heading from Blayney you would pass the sites of two fatalities in about a 6km journey. Heading from Bathurst to the mine site you would pass the site of another 2 fatalities. Regis have stated there has only been one fatality in the area in their EIS. This is not true. Cadia has had at least two fatalities on local roads with their own employees and the roads around the Cadia mine site are of a higher standard than the local roads around here. If the mine was approved who is responsible for any fatalities knowing that the local roads and intersections do not meet Australian Road standards? I would estimate that there would need to be at least \$10M worth of upgrades to local roads, intersections and entrances to make the roads safer if the mine was to be approved.
5. **Mine site intersection:** Regis have proposed a basic “T” Intersection into the mine site. This design is not sufficient as it only has the bare minimum sight distances. If a truck is heading west from Bathurst and there is an accident at the mine site intersection, there is a very steep gradient heading down hill and around a long corner, there is no way a truck would be able to pull over or divert around the accident. They would have no choice but to plough into the

vehicles in front. A minor accident would then turn into a major fatality and the truck driver would be the innocent one. The area around here can get very cold, wet, icy and foggy and things need to be designed better to avoid accidents. I believe that if the mine is approved that the only safe way to do the intersection is with an entrance bridge over the top of the highway design. There is sufficient room and this would cost the mining company about \$5M to complete and if it is approved this should be made to be a condition of the approval. Regis have publicly stated that if there is a problem with fog they will get the trucks to pull over on the side of the road and wait for the fog to clear. This is not acceptable and there is no room on the plans to do this. It is also very dangerous to have vehicles parked in a foggy area.

6. **Noise:** Our background noise levels are so quiet we can hear any little change to the environment. Some days I can hear a train going between Millthorpe and Blayney, this is at least 5 km to the closes point of the railway line. We can hear the trucks travelling on the Mitchell highway which is also at least 5 km away. We are also on the flight path between Sydney and Orange and regularly hear the jets flying high overhead. This noise is fine as it is gentle and just blends into the surrounding noises. If the mine site is approved there will be banging, clanging and buzzers going 24 hours a day/seven days a week. I don't think it is acceptable that we should have to live with the noise of an operational mine in such proximity to our quiet, peaceful environment. Regis has stated in the EIS, that noise will be kept under the guidelines set by the EPA, these guidelines are not acceptable for the surrounding neighborhood.
7. **Vibrations:** when Regis first started drilling about 8 years ago there were very distinctive vibration sounds throughout the house. I complained to Regis about this and they were not informative regarding their drilling practices. They told me that it could be from Cadia or something else. I found out later that they were drilling 24 hours a day when they did not have approvals for it. This sound was like someone was using a small jack hammer in the same building, but it was from 5km away. We are on the same fault / rock line here that runs all the way to Cadia. I don't think that it acceptable that we should have to put up with the vibrations and noise here for others to benefit financially.
8. **Disturbance to the local community:** Blayney and Millthorpe are local towns with a strong sense of community. If the mine is approved, Regis will start paying up to double the wages that the local businesses can afford to pay. Therefor a lot of the local businesses will lose quality, local staff to the mines. This is all well and good while the mine is going but after the mine has finished this leaves the locals left without a local job. This creates a split in the community and businesses.
9. **Light pollution:** If the mine is approved it will change the night skies of the local environment. This will affect the night life of a lot of wildlife as well as disturbance to neighboring properties.
10. **Local heritage buildings:** There is a lot of old buildings in the area, these building were built on a basic bluestone or brick footing. The main house on this property was built in 1924, it is double brick and it is starting to move and cracks are opening up. If the mine was approved the blasting and vibrations could affect a lot of old houses around. Whose responsibility would this be and how could a landholder prove that the damage was caused by the mines if it was to happen. This would leave a lot of farmers having to spend hundreds of thousands of dollars to fix up some of these old buildings which would be fine if the mine was not approved.

11. **Local heritage sites:** There is a lot of heritage significance to the site of the proposed gold mine. A lot of this would not be in the EIS because they don't know about it. For example, the old Cobb and Co routes went straight through where the proposed tailings dam is. There is also a lot of old Aboriginal significance in this area.
12. **Flora and Fauna:** There is a lot of old gum trees on the proposed mine site. This is home to a colony of chlamydia free Koalas, and it should be protected at all costs. Koalas are one of our national icons and their habitats should be protected. Some of the farmland has been over cleared throughout the years and we need to protect native stands of old gum trees. The clump of trees which are proposed to be cleared on the mine site are very important to the local ecology.
13. **Bees:** There is a major bee producer on the eastern side of the proposed mine site. I do a lot of welding and fabrication for this company. This company is one of the largest local employers in the area employing over 30 full time staff. If the mine was approved it could have a major effect on the quality of the honey it produces and the packaging factory. If this mine was approved and the honey quality was adversely affected, who would be responsible for this and how would it be rectified?
14. **Dust:** If the mine was to be approved there would be a lot of dust blowing off the site. This area can be quite windy, that's why there is a wind farm at Carcoar and another one proposed at Browns Creek. Regis has stated that dust will not blow off site as they will suppress all the dust. This is not physically possible with the current climate and it would be impossible to suppress and manage the dust. The two houses on Stonehaven are about 3 km directly east of the proposed tailings dam and they are about 20 – 30 meters below the level of the tailings dam. We would be one of the most affected properties here from dust off the tailings dam if the wind is blowing directly from the east. Cadia has recently had a lot of issues with its tailings dam after the dam wall failure. This situation could easily happen here.
15. **Contaminated water:** Regis are proposing to build a pipeline and pump water from Lithgow. There is minimal information in the EIS about the quality of the water. It has been publicly said that there could be up to 10 000 tons of salt and minerals brought to the mine site each year and sprayed on roads and tailings dam. What will happen to this salt and minerals overtime? How is this even legal? Who is responsible if something goes wrong?
16. **Discovery Ridge:** This is Regis' other proposed mine which will not need a major approval if the Kings Plains mine is approved. Regis have overdesigned the mine at Kings Plains to be able to process ore to be imported from Discovery Ridge or any other proposed mines around the area. Regis should be made to put their full intentions on the table now.
17. **Funding:** Regis are running out of money. Regis have just over \$100 M in the bank to construct this mine. The mine is going to cost a lot more money than this to construct and operate. Where is the other money coming from and what happened if Regis goes broke? Who is responsible for cleaning up everything then? If Regis sell up to a foreign company, what boundaries apply?

18. **Electricity supply:** Regis have not supplied thorough details about an electricity supply for the mine. Where is the supply of electricity coming from?
19. **Mining best practices:** If the mine is approved will they have a low carbon footprint? Are they using world best practice?
20. **Sustainability:** When will people and governments realize that food production, agriculture and looking after the local environment is more important than mining and royalties. If this drought goes on for another five or ten years and this area is some of the best and safest agricultural land in Australia with its natural springs and underground water, it will be one of the only areas still able to produce food for the nations starving people. What is going to be more important then, a bunch of gold bars sitting in a safe or food on everyone's table?
21. **Groundwater licenses:** Regis is still chasing licenses for a few hundred more megaliters of ground water. Orange and surrounding towns may need this water to function as a city in a few years?
22. **Understated values of the agriculture sector:** In the EIS, the local agriculture sector states that the land is producing less than it currently is and has potential to. The local area is producing a lot more than is stated in the EIS and it has been stated by Regis that the land will never be returned to its current productivity levels.
23. **Testing of creek flows:** There are multiple creeks around the proposed mine site which Regis have been completing water flow and quality testing. Have Regis completed a thorough testing regime of flows in the local creeks or have they just used the data which suit them? From my understanding testing has only been completed over a short period of time. Regis have completed a lot of modelling and calculations based on a short period of testing. The quality of testing should show evidence of the springs opening up as they did in July last year. If the tests do not show this; then I don't believe that this testing on base flows in the creeks has been completed properly. Where is the proof and the independent testing in this over a long period of time?
24. **Tailings dam and new dams:** The tailings dam has a proposed wall height of 60 meters. This is a massive dam wall structure. How is it that we are not allowed to build new dams in NSW because there hasnt been any big new dams built in NSW for the last 60 years, but a mining company is looking to get approval to put a tailings dam over a river, fill it with salt and chemicals, use it for 10 – 15 years, cap it with topsoil and walk away from it? Wouldn't we be better off putting this effort and money into building new dams that would last for generations? It would be a lot better for the environment; and in the long run everyone would make more money out of it?
25. **Blasting:** Regis have stated in the EIS that they would be using a low-grade explosive for any blasting due to the close proximity of the Mid Western Highway and local Kings Plains residents. The highway is less than 500 meters from the edge of the blasting zone and some houses are just on the other side of the road. From my understanding at most mine sites; there must be a 1km evacuation zone during blasting. If Regis need to enforce this 1000-meter buffer zone how would this operate? Would they be legally allowed to close the Mid Western Highway, pick up the blasted rocks and reopen the highway an hour or so later? Would the

legally be allowed to ask residents to evacuate from their own homes and return when it is safe? I don't believe this is right Australia is a free country and local residents should not have to put up with this in their own homes.

26. **IPAC review:** There is a good chance that this project will receive more than the necessary 25 submissions and it will be assessed by IPAC. Who chooses who is on the small IPAC assessment team and how can everyone be sure that this is truly independent?
27. **Flooding and diversion of water around the tailings dam:** Regis have stated that they would pump water around the proposed mining site in a large flood? How is this physically impossible and where is their detail if this doesn't work? Will the flood water just flow straight through the middle of the mine site or will it be backed up and left to kill thousands of native gum trees?
28. **Flooding and the main pit:** There is not a lot of detail about how water would be pumped out of the pit if there was a big flood. What would happen to this water and how would it be treated? There are not many pumps available that would be able to lift water the 400 meters out of the main pit.
29. **Getting around site in a wet year:** When things get wet around here the only way around our farm is on foot, a four-wheel motor bike or on horseback. It is impossible to get any other type of machine around. If the area is in flood and a pump or something fails how do Regis propose to get around the mine site to fix things?
30. **Rehabilitation:** If the mine is approved and the tailings dam is build; and after the mine is finished. I have not seen any detail of how the natural Belabulah river and creeks will be rehabilitated to mimic the natural flows. I think that this is impossible to build with the proposed 60 meter high tailings dam wall? This needs to be looked into?
31. **Bushfires:** Have Regis put plans in place for bushfires around the mine site for any bush fires which may occur around the proposed mining site?
32. **Cyanide:** Regis is planning on using a cyanide extraction process to extract the gold form the ore. This process has been banned on some countries around the world. What happens to the cyanide during the process and where does it end up? I think that there needs to be more detail and investigation around this?
33. **Lining of tailings dam and capping off springs:** Regis have proposed to cap off existing springs under the proposed tailings dam and build the tailings dam over these springs. From my experience around here, this does not sound right to me because springs are developed from pressure being built up in the underground water table and this will just seep through at the next lowest pressure point. It is like a tyre with multiple punchers. I don't believe that Regis or anyone can fully describe what is going on with the underground water system.

34. **Harvesting of runoff:** Farmers can only harvest up to 10% of water runoff. How is the mine allowed to take 100% of water which falls on the proposed mining site. Any water which is caught before the proposed tailings dam is ment to be pumped through the mining site and released downstream. How can Regis prove that they are releasing the full amount of water which is caught before the tailings dam and they are not backing up water upstream on the Belabulah River and using it on the mine site?

Thank you for reading through my submission.

Tim Packham