

**Submission
No 78**

**INQUIRY INTO CURRENT AND POTENTIAL IMPACTS OF
GOLD, SILVER, LEAD AND ZINC MINING ON HUMAN
HEALTH, LAND, AIR AND WATER QUALITY IN NEW
SOUTH WALES**

Organisation: Belubula Headwaters Protection Group

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5th September 2023

Dr. Amanda Cohen MLC
Chair
Portfolio Committee 2 – Health
Legislative Council

RE: SUBMISSION: INQUIRY INTO CURRENT AND POTENTIAL IMPACTS OF GOLD, SILVER, LEAD AND ZINC MINING ON HUMAN HEALTH, LAND, AIR AND WATER QUALITY IN NSW.

Thank you for the opportunity to have input to the abovementioned inquiry which is so pertinent to our cause and members. The Belubula Headwaters Protection Group (BHPG) is a group formed by community members that reside in and around the headwaters of the Belubula River in Central West NSW (predominantly Guyong, Vittoria, Kings Plains and Blayney). Our purpose is to protect and improve the land and waterways which create the Belubula River. The Belubula River creates Carcoar Dam and is a tributary to the Lachlan River Catchment.

With over 130 financial members, 630 followers on our social media, and 300 email contacts, we make this submission on behalf of our members and supporters. We also make this submission after going through the 5 year assessment process from SEARs to IPC determination for the McPhillamys Gold Project (SSD- 9505), and the ongoing establishment of the project, including preparation of Management Plans and ongoing community consultation. We are a representative community group on the Community Consultative Committee for the Project and are the lead objectors to the proposal. Our experience through this process has resulted in many learnings about the assessment process, and more so, the requirements for proponents, in particular the lack of substantiation required and ‘real life’ data.

Although McPhillamys is not yet an operational mine, the recent assessment process highlights significant shortfalls in analyses of mining assessments, and inadequate minimum standards and requirements for assessment reports.

We are thankful that this inquiry looks to investigate some of the real impacts that mining causes based on actual results, not desktop models and projections based on best case scenarios and inputs dictated by the proponents at the time of assessment. Our Submission details our findings through the NSW DPE and IPC assessment process, and we list below specific outcomes we believe should exist as a result. We have also noted matters relating to specific Terms of Reference following our requested outcomes:

- 1. For all mining project assessments and modifications, merit appeal rights through the state Land and Environment Court (or equivalent) need to exist, and this must be imposed retrospectively to any SSD mining projects that are yet to commence construction.** This is the only avenue for a truly independent analysis of the quality and accuracy of an environmental assessment. Given the cost and time of such a process, it would not be ‘abused’ unnecessarily. Only those assessments where a large portion of the community genuinely believe the assessment is incorrect or inadequate, and where significant evidence exists to support the claims, would an appeal be pursued. The appellant still needs to pay their own way through the process, and even if the process results in no change to the determination, it will provide more of a sense of security for the public that the assessment has been thoroughly analysed. If a

proponent was so confident in their assessment, there shouldn't be a concern about having a merit appeal process as they should be confident the outcome would remain unchanged, and that the process provides further support to their claims of the impacts and outcomes.

The process without a truly independent assessment is far too favourable to proponents and all but guarantees approval. As an example, despite our detailed submissions and regular feedback to the DPE, and the fact the proponent had three amendments to their original EIS, the DPE spoke to our group on one single occasion early in the project assessment, prior to all of the amendments. No further consultation occurred from the DPE with our group and evidences the fact that the DPE will speak for years with a proponent telling them what is needed to tick their boxes of assessment but will only talk once with the main body that is opposed to the project, and represents the voices of hundreds of people who are being and will be directly impacted by the project being assessed.

- 2. Health Impact assessment reports must be prepared as a standard requirement of any mining assessment or modification, and these must be prepared by independent experts engaged directly by the assessment authority.** The health impact assessment must be based on the actual health status of the persons who will or could be impacted by the project. The health assessment must include impacts to both physical and mental health and must include a matrix to scale impacts to determine what impacts are unacceptable and must be mitigated, or cannot be tolerated even after mitigation by a project approval. This must include an appropriately qualified survey of the nearby neighbours to determine a baseline assessment of the existing health statuses of those most likely to be impacted.

As an example of why this is necessary, the McPhillamys Gold project did not initially include any health assessment until the community lobbied that one should exist. The resulting health impact assessment that was included in the assessment was based on NSW Western Local Health District data, not data from the actual people who would be impacted by the project. Consequently, our group carried out our own baseline health survey, which resulted in significant differences in what the NSW LHD data showed as being the health status (because it's based on such a large area), and the reality of the health of the direct neighbours of the project. The proponent's health report determined the population in the area (being the Western Local Health District, not the mine site community) is generally obese, alcoholic smokers, and subsequently the impacts on health would be minimal as they're already generally unhealthy. The reality from our own survey is that less than 10% smoke, and less than 15% drink more than 1 standard drink of alcohol per day. It also showed that 70% have existing health issues which includes a quarter having respiratory issues (some of which were advised to move to the area for the 'clean air' by their medical professionals), and nearly a fifth experiencing mental health conditions such as anxiety and depression. This survey was conducted prior to the DPE and IPC assessments which is when mental health impacts were amplified for locals, and the results were included in submissions made to both the DPE and IPC, but were not responded or referred to by either authority. The above demonstrates that health assessments are not taken seriously by proponents or assessment authorities and how the true and actual impacts to the health and wellbeing of those that will be directly impacted by mines, is disregarded.

- 3. Use a more balanced approach to cost benefits analysis so that the true value of social and environmental costs are accounted for.** The McPhillamys cost benefit analysis is copied below from table 4.4 from page 33 of the Economic Assessment (Appendix DD) of the EIS. The below assessment fails to quantify any cost to the environmental impacts by use of 'offsets' which is not actually protecting any pre-existing environments, and subsequently does result in a loss

(cost). The assessment deems these costs as operational and does not factor in the long-term cost of the permanent change to the environment. This can be demonstrated by the fact there is no cost assessment resulting from the 'plugging' of over two dozen natural springs that create the Headwaters of the Belubula River. They factor the cost of physically carrying out the 'plugging' such as earthworks and materials, but there is no assessment of the cost of indefinitely reducing the perennial flow that creates the Belubula River. Such an assessment should include costs to downstream users for a reduction in water quantity, particular in times of drought where they may have to spend money to cart water for their needs. There is no inclusion of a cost of potential impacts to the quality of the water in the existing Belubula River. We have not been guaranteed that a Tailings wall failure is impossible. The proponent in fact admits that if there is a Tailings wall failure, the contents of the Tailings Dam will flow into the Belubula River. Yet there is no assessment of this potential cost. Even if the proponent deems an impact unlikely to occur, we know from reality that those unlikely impacts do occur, and they need to be included in the cost benefit analyses so that the true actual and potential costs of the project are known in the assessment. Similarly, ecology and biodiversity impacts are again 'offset' and only factor in the actual cost of either acquiring offset land, the payment of the offset fee, or the cost of mitigating impacts. There is no opportunity cost assessment for the loss of decades old established flora (in many cases endangered and in some cases critically endangered) and the impacts this then has on the fauna that live and feed from these established areas.

What can also be seen in the assessment below, is that not only is there no value attributed to health impacts, but health impacts and community loss of life is not even considered in the assessment. This cost extends from physical health impacts such as impacts of deteriorated air quality and subsequent costs of medical treatment, as well as the opportunity cost of otherwise productive time at full health; but also mental health impacts from disturbed sleep patterns, changes to ways of life not being able to enjoy their home, strain on relationships having to co-exist with a mining project, and even depression and anxiety where the impacts of these result in a significant lifestyle change for the community, especially for those that oppose it or have to deal with the impacts of it. Loss of life is not a stretch from a potential reality of a cost of these projects, both for the local community (via deteriorating health conditions resulting in premature death, or mental health deterioration resulting in suicide), and for workers (via workplace incidents).

Although difficult to accurately quantify, it is not impossible, nor is it difficult to create a methodology to provide ranges of cost impacts, especially after surveys of the existing lifestyles of the surrounding community is completed. We know that as a direct result of the McPhillamys project, that family breakdowns have occurred resulting in divorces, estranged relationships, and strains on continuing relationships. These family breakdowns have a direct cost to the family who experience them, and an indirect cost to the community who lose those otherwise active members. There are then ongoing costs to the family members who must live their lives either with a fragmented family relationship, or not talking to their family ever again. Additionally, the loss of existing dwellings and residents was not considered in the cost benefit analyses even though the project will result in the demolition of over a dozen existing dwellings and prevent several more potential new dwellings from being constructed. Each lost dwelling represents the opportunity cost of a family residing in the area for an indeterminate amount of time and is not part of the cost benefit analyses of mining projects.

**Table 4.4
Global and National Cost Benefit Analysis Results of the Project (Present Values @7%
discount rate)**

	Costs	\$M	Benefits	\$M
Production	Opportunity cost of land	\$30	Sale value of gold	\$1,759
	Opportunity cost of capital	\$1	Residual value of land	\$14
	Development costs	\$396	Residual value of capital	\$8
	Operating costs ex royalties	\$986		
	Rehabilitation and decommissioning costs	\$14		
	Production Sub-total	\$1,427		\$1,782
	Net Production Benefit			\$355 (\$347)
Externalities	Agriculture	Reflected in land costs which are included in opportunity costs of land and development costs	Wage benefits of employment	\$32
	Surface water	WAL cost included in development costs. No material residual impacts	Non-market benefits of employment	\$60
	Groundwater	WAL cost included in development costs. No material residual impacts	Economic benefits to existing landholders	Not quantified
	Air quality	No material impacts	Economic benefits to suppliers	No material impacts
	Noise and vibration	At receiver mitigation costs included in development costs. No material residual impacts		
	Ecology and biodiversity	Some loss of values but offset. Cost of offset included in development costs		
	Aboriginal heritage	32 sites of stone artefacts impacted. Not quantified		
	Historic heritage	\$7(\$2)		
	Transport and traffic	No material impacts. Costs of access upgrade included in development costs		
	Visual amenity	Cost of mitigation measures for impacted properties included in development costs		
	Greenhouse gas	\$16 (\$0*)		
	Net public infrastructure costs	No material impacts		
	Loss of surplus to other industries	No material impacts		
Externality sub-total	\$23 (\$2)		\$92	
NET SOCIAL BENEFITS – including employment benefits				\$423 (\$437)
NET SOCIAL BENEFITS – excluding employment benefits				\$331 (\$345)

- 4. Assessment authorities must engage and utilise independent expert advice in their assessment.** An assessment must not be based solely on reports paid for by the proponent using consultants who require continued engagement from proponents to make a living. These are not independent, and the consultants have a vested interest in providing reports that are supportive of proponents to secure future work in the industry. Additionally, simply requesting a report is insufficient, the assessment authority must then use this report in their determination including references to recommendations. As an example, after significant pressure from us, the DPE requested their own Social Impact Assessment of the McPhillamys project, which was provided by their internal expert. This report noted numerous shortfalls in the proponent's assessment, and several rebuttals to claims that were made by the proponent. The proponent then responded to this report, addressing some of the items raised, but most remained unchallenged, and those that were addressed were not 'resolved' as much as the proponent stating a difference of opinion. Regardless of this internal report by the DPE, it was not referred to in their assessment decision and specific recommended conditions that formed the experts

report were ignored in the DPE and IPC final consent, despite our group specifically raising these in our submissions and referring to the Expert report. This shows you have an assessment authority which will only engage an expert review for a significant impact area of a project after significant pressure from the community, and that the subsequent report recommendations (which have been proposed by an expert employed by the DPE) have been ignored.

5. **Regulators of approved mining projects must have more authority and accountability to enforce the conditions of consent.** We have experienced directly the reliance on consent conditions for enforceable action against proponents who willingly or accidentally breach consent conditions. As a result, we strived for more specific, measurable and accountable consent conditions in the determination of the McPhillamys Gold Project, offering over 130 consent condition proposals or modifications to the IPC from those proposed to the DPE in our submission. Each proposal was explained as to why the DPE proposed condition was inadequate and explained why our proposed condition would achieve a better outcome, none of which were taken on board or referred to by the IPC in their determination. Instead, the conditions remain vague and rely predominantly on 'management plans' which are prepared, implemented and monitored by the proponent themselves.

This self-regulation of mining projects is what results in the failures that we see at Cadia and other mines world-wide. It's a cycle of mining companies using consultants which rely on the ongoing work from the mining industry to survive, to prepare reports based on inputs and direction from the mining company, for the mining company. The operators then review these reports, go back to the consultant for modifications before finally issuing them to the regulatory authorities. When truly independent analyses is then carried out by either the regulators or community members, the actual results differ greatly from what has been reported by the mining company.

The reason for this behaviour is obvious, it's easy to do, and it's inexpensive to be penalised if they are found out to in fact be breaching conditions. The risk of a maximum penalty that may be tens of thousands of dollars is not a disincentive to a company making hundreds of thousands of dollars in profits per week. It is not a hard decision for a company to complete a cost benefit analysis and ask themselves if reducing production (which will cost \$100k) to ensure compliance with air/noise conditions (which MAY result in a fine of \$15k if it can be proven after investigation) is worth it. This is why financial penalties must not only be higher (have a set minimum but then also an uplift based on a % of revenue); but penalties must also include actual operational implications such as restricted operations until the issue is resolved or even the revocation of approval.

Part of penalties must include compensation to those actually affected. It is not fair, reasonable or equitable that those who are experiencing the impacts of failures, such as excessive noise, dust, light intrusion, traffic impacts, social disposition, reduced water quantity or quality and so on, are not compensated for the impacts of these. Having a monetary fine that goes to the regulator should be only part of the consequence to an operator which fails to comply with their own predicted modelling, based on their own inputs, generated by their own consultants, and governed by their own management reports.

Regulatory authorities need to be forced to ensure the proposal is being carried out as proposed. In the same way building a house gets inspected by certifiers at stages, regulatory authorities need to be regularly inspecting the construction, operation and rehabilitation of projects to ensure the proponent is actually doing what they said they would. Are roads in the right places, are screening efforts actually being carried out, are planted trees in fact growing,

are vents in the location they stated they would be, is traffic using the roads that were stated to be used, is equipment being maintained and suppressed as proposed, are all social impact mitigation measures and community involvement matters being carried out, and all of the other matters which the consent conditions state must exist. If failures are found, regulatory authorities must have the power to force the changes, even if it means ceasing production until it's rectified. Regulatory authorities must be continually reminded that the only objective of these projects is to make profits, not to maintain employment or community cohesion. As soon as a mining project stops making money, it goes into care and maintenance without regard for the employees or community. Even if mitigation measures are a cost impact to the operator, these projects get approved on the basis that the impacts are 'manageable'. If they're not being 'managed' they need to cease.

- 6. A review of the process and function of the Independent Planning Commission (IPC).** Projects get referred to the IPC for a more thorough review because submissions against the proposal indicate there is reasonable opposition to the proposal and more detailed assessment is required. However, the IPC continue to approve projects with numerous issues raised, but without any material modification from the DPE determination. This indicates the IPC is failing to perform its task appropriately.

As an example, despite our groups submission containing over 130 specific and justified consent condition modifications and proposals, the IPC changed none of the consent conditions from the DPE (even one's which were supported by multiple expert advice reports and contradicted the DPE's own prior consent conditions for other similar projects). Prior to the IPC Hearings and during the submission period, the Commissioners and their staff advised the community that the process was our chance to be heard and to have our concerns genuinely reviewed by people outside of the state Government. The community committed literally months of their lives and tens of thousands of dollars on their presentations at the hearing and their written submissions. In the IPC findings report, no submissions were referred to, no proposed consent condition modifications were referred to, and nothing meaningful was changed from the DPE determination. The entire process resulted in a waste of time for the community, costing the economy tens of thousands of dollars in lost productive time, and tens of thousands of dollars extra from money that would have otherwise gone into the local community but was spent on expert reports which were all ignored.

The current IPC process is not fit for purpose and must be reviewed with a far deeper requirement to be 'independent'. As it operates at the moment, it's just a brief review of the DPE assessment and a 'pass it along' to get it to the finish line.

- 7. Ministers shouldn't be able to create or change licencing without genuine consultation with those impacted.** As part of the McPhillamys Gold Project assessment, the proponent was unable to obtain sufficient surface water licenses that were required under the NSW Water Licensing Act for the volume of water the DPE determined they would be impacting for the project. As a result, a stalemate ensued for over a year where DPE Water stated they working on a solution to allow for more licences upstream of Carcoar Dam, and the proponent said they couldn't access more licences that were needed because they didn't exist. The end result was that new Special Purpose Access Licences (SPAL) were granted specifically for the McPhillamys Gold project by the Minister for Water. This then allowed the proponent to respond to DPE water and state they would acquire those SPAL's as required after approval.

The SPAL will allow the proponent to licence all the 4th order and higher streams that the TSF will block. This means they are allowed to buy water licenses from out of this catchment, further

downstream, where there is already a strain on the Lachlan and Darling system. The health of the river will also be compromised by the lack of environmental flow which currently exists in the system. The Belubula catchment does not and will not be able to support this project, so the Minister intervened and made a unilateral decision to provide a 'get out of jail free' card to the proponent.

Subsequent investigations by our group have resulted in us determining that there is no avenue for consultation or even feedback on the application of a SPAL and as such, they will simply be granted to the operator by the minister when required. These SPALs will move licences for otherwise downstream entitled water users to North of Carcoar Dam so the operator can consume them. This has been changed and permitted by the action of one person who does not use the waterway, does not live in the area, and will not be impacted by the change. This is entirely inappropriate and must be changed to not only revoke the current adjustment that occurred, but also prevent any future potential similar actions from occurring again.

- 8. Rehabilitation must include restoring disturbed areas to their pre-mining condition.** Mining companies claim they will 'rehabilitate' mine sites post mining operations however this does not correlate to the definition or community expectation of rehabilitation, which is to restore a disturbed area to its pre-disturbed state. This would include refilling ore bodies after the proportionately small amount of ore is retrieved, and restoring waterways and landscapes to pre-mining conditions. However, this does not seem to apply to mining companies who continue to claim sites will be rehabilitated, even when ore bodies will be left untouched.

In the case of McPhillamys, the 'plugged' springs which create the Belubula River will not be dug back out after mining to re-form the river, because they will be below the Tailings Dam. It was proposed by an engaged expert of ours that the project should place the tailings back into the pit upon completion (meaning after all ore is extracted and therefore, it's not blocking access to any unmined resource). This would prevent the issue of the springs being below the Tailings, lower the risk of river contamination, and refill the pit. This option was not pursued by the proponent and not thoroughly investigated by the IPC. We have included the expert report (G Mudd) as attachment 1.

Similarly, the open pit will be left as a 'void', fenced off, and will fill with water for hundreds of years before reaching equilibrium with the groundwater table. It will be fenced off with no efforts to refill it with the waste rock extracted. This is justified by it being "uneconomical" to refill by the proponent. There are two issues with this claim, one is that the proponent has then not substantiated the claim and has failed to demonstrate that by filling in the void, they will run at a loss; and two, that this should simply be 'cost of operation'. As is all other rehabilitation: planting trees, reshaping landforms, top dressing tailings, removing processing facilities and so on are all rehabilitation efforts that are costs of the project. What's preventing a proponent from simply stating "it's uneconomical to clean the river after a tailings breach", or "it's uneconomical to plant trees or grow grass on the waste rock wall", and then simply not doing it? Regardless of it's financial impact on the project, it's a cost of the project and needs to be a requirement of all projects.

This is a particular issue with McPhillamys due to the large portion of the community that support the project believing that the pit will be filled in. This is despite repeated efforts from informed community members advising them of the fact it won't be. They respond advising they've been told by proponent representatives that "the *site* will be rehabilitated", and this means "they can't leave without filling in the pit". At no point has the proponent attempted to publicly announce this is not the case to the community at large. If the general community

expectation (from both supporters and opposers) is that land deformations must be restored post mining, then it must be a standard inclusion for rehabilitation requirements of all mining projects.

Separate to the desired outcomes above, our experience and feedback in order of the Terms of Reference are noted below:

- a) the impact on the health of local residents and mine workers, including through biomagnification and bioaccumulation
- Even before operating, a proposed mine has a significant and real impact on the health and wellbeing of the community it's proposing to operate in. This extends to the family members and friends of those that live there. We touched on these at our requested outcomes 2 and 3 to help address the current significant shortfalls.
 - Mental health impacts are entirely ignored and physical impacts are understated and not quantified. We had an expert (Dr Alison Ziller – attachment 5) prepare a report for the IPC assessment which talked about the fact that mental health had been entirely ignored and that the proponent's proposal inadequately assessed the social impacts of the project and that the proposed mitigation measures are entirely inadequate.
 - Family relationships are destroyed, anxiety, depression and loneliness are amplified, and none of the cost of these impacts are ever quantified or assessed as being impacts of the project. Months of people's lives are spent on reading through EISs and amendment reports which exceed ten thousand pages, time is lost with children, partners, family, friends, productive work lives, community groups and events, all to ensure they have an understanding of the proposal, and to ensure proponents are adequately being held to account.
 - The psychological and physical health of Aboriginal people is intrinsically linked to the health of the landscape, via a strong connection to Country that has been borne through tens of thousands of years of handed-down heritage and knowledge. This connection is linked to the individuals and groups' responsibility to care for Country and the Songlines that traverse the landscape. The continued desecration of the Country through the activities of mineral extraction does not take into consideration the wishes of Aboriginal people, in fact, Aboriginal peoples' knowledge and opinion concerning tangible (material) and intangible (spiritual/stories) regarding Aboriginal heritage sites is routinely ignored or discounted. This leads to the inevitable impact on Aboriginal peoples health and well-being. The importance of the connection to Country and the links to health and wellbeing is discussed in: *FOCUSSING ON CREEKS: WIRADJURI ECOLOGY, SOCIALITY AND COSMOLOGY* Gaynor Macdonald (attachment 2)
 - The assessment process amplifies this neglect by not genuinely engaging with the community, not appropriately taking on their feedback and submissions, ignoring their suggested conditions, and not referring to anything submitted by them in their determinations. Our groups submission to the IPC was over 60 pages long and included very specific and clear suggestions for condition modifications, including proposed wording with justification as to why they were needed, none of which were modified or referred to by the IPC in their determination. The above does not include information from experts paid for by our own money which also included further condition recommendations, of which all were again ignored. Having two assessment bodies ignore genuine attempts to improve a project approval has a significant impact on the mental health of those that contribute to the reports. It has created depression, loneliness, isolation, and a sense of worthlessness within the community.
 - The genuine fear that now rests in the minds of the neighbouring community of the McPhillamys project is disheartening. There are hundreds of people constantly doubting their life choices and decisions all pending what the actual impacts of the mine may do to

them. Observing and being part of the real impacts that result from mine project applications is why requested outcomes 1, 2, 3, 4, 6 and 8 are so important as a result of this inquiry.

- b) the impact on catchments and waterways, affecting both surface and groundwater destined for, local and town water supplies, including rainwater tanks, and on aquatic biodiversity
- The entire population surrounding the McPhillamys mine is reliant on tank or groundwater for their drinking supply, as well as their supply for livestock, pets, and horticulture.
 - The proponent of McPhillamys has offered water filtration devices to be installed on just over a dozen of the more than 70 dwellings located within 2km of the mine site (less than 20%). The filtration devices are basic water filters and there is no inclusion to have these maintained on an ongoing basis. These are also only provided in the event that these residents sign a contractual agreement with the proponent that then prevents the resident from lodging complaints to regulatory authorities if they're experiencing impacts of the mine. This was deemed appropriate by both the DPE and IPC.
 - Dr Gavin Mudd's expert report (see attachment 1) makes it clear that the tailings will act effectively like a perched aquifer system and that it is going to stay for decades to come and that this was acknowledged in appendix D of the EIS from proponent. He stated that means we are going to have a long-term risk for seepage that needs addressing prior to approval. He stated that he was disappointed that there was no examination or assessment of transferring the tailings once the project was finished, and potentially depositing them into the final void. He claims that this would minimise the long-term risks and even eliminate some of them compared to leaving the tailings in situ in the TSF.
 - To reduce the large number of water licenses the proponent was required to acquire, in an amendment report (May 2022), the proponent designed a clean water diversion pipe. This diversion essentially sends water around the TSF, into a dam, and then pumping back into the Belubula River. This has reduced what the proponent now needs in term of licenses. However, the DPE has issued an 'Excluded Works Exemption' which states that all attempts must be made to store the diverted water in a clean dam. The order also states if the water does get contaminated to any level, it must not be released into the river. There is nothing stopping the proponent from undertaking this deliberately so that they can access all water, without having to license for part of it.
 - Assessment authorities do not treat expert reports equally, nor do they provide equal levels of input from both proponents and objectors. We provided several expert reports that contradict many of the claims made by the proponent of the McPhillamys project, all of which were discounted and disregarded by the DPE and IPC in their assessments. As an example, we included an expert report on the impacts of changes in the Belubula River to the threatened species, the Platypus (attachment 3). This was again, disregarded by both the DPE and IPC.
 - A significant concern is that there seems to be an absolute disconnect between an isolated impact, and the accumulated impacts of mining projects. There's a belief and presentation from the DPE and IPC that an 'immaterial' impact in one project, has no bearing on the accumulated impacts of the state or nation. This conflicts entirely with all professional and expert reports about declining flora and fauna numbers that it's an accumulation of small impacts which are causing the destruction to waterways, and biodiversity.
 - Conditions of consent are based on the desktop 'best case' scenarios from proponents, and they only allow for after the fact monitoring. There are no conditions imposed that force a proponent to proactively prevent contamination. Unfortunately, as is the nature of monitoring, you only identify an issue after it has occurred. The obvious issue with such conditions, is that the damage cannot be undone, and by the time breaches are not only identified, but are also reported, people and animals have already consumed the

contaminated water, and in most cases involving consumption of water, the harm is irreversible. This is why our requested outcomes at items 1, 3, 4 and 5 are vital.

- c) the impact on land and soil, crops and livestock, including through biomagnification and bioaccumulation
- Bioaccumulation is the major aspect which is ignored in the DPE and IPC assessment process. Impacts that they deem as immaterial on their own such as a less than 20% reduction of productive land for one project, has its impact ignored both by the accumulated impacts of each project, and more importantly, the accumulated impacts of all approved projects. Similarly, by stating that agriculture forms a small part of GDP in part of the stated economy, it ignores the flow on impact that removing that small part has on other industry, but also what removing 10, 20 or more of the same small parts has on the industry as a whole. Cumulative impacts are not part of the DPE or IPC assessment and they need to be. If they do not assess cumulative impacts with existing and other potential projects, the true scale of impacts will always be understated and undervalued.
 - The granting of SPALs and changing licences without requirement for community/user consultation is unacceptable. Business and people rely on access to water for their crops and livestock care and management. By allowing change without adequate consultation with users of the water system, the true impact will never be known.
 - Assessments create and allow permanent changes to land grades and qualities via best case scenario desktop models by proponents, assuming they can carry out all proposed actions, and that the proposed actions work without issue. These are justified as being 'immaterial' downgrades in the scheme of the land quality in the area, or the size of the land. This again raises the issue of not assessing the accumulated impacts, but is also not quantifying that these downgrades are a permanent feature of the projects. Assessment authorities are accepting large quantities of small portions of permanent land quality downgrades as an acceptable consequence for a short-term project that may not even result in essential ore (in the case of McPhillamys, over 90% of the ore is going to investment and jewellery).
 - These projects then result in permanent voids left after mining due to being 'uneconomical' to rehabilitate. In some circumstances, even the rehabilitated areas can't be used for farming due to the toxicity of the ground below the topsoil.
 - This can be addressed by adopting our requested outcome items 1, 3, 4, 6, 7 and 8.
- d) the adequacy of the response and any compliance action taken by the regulatory authorities in response to complaints and concerns from communities affected by mining activities
- Although not dealing directly with an operational mine, our group has been assisting and working with those impacted by Cadia's mine and know that the response from regulatory authorities is slow, ineffective and lacks enforceability and an accountable response from operators.
 - Actions and responses from operators are then not followed up by regulators. As an example, whilst the operator knows they're being assessed for air quality exceedances, they will modify the usual schedule and scope of mining activity to purposefully reduce emissions. Once regulatory monitoring is concluded, showing emissions may meet current criteria, the operator immediately changes their schedule back to what it was, producing more emissions and exceeding limits again. This is easily done as the regulatory authority does not complete frequent, ongoing, ad hoc and unannounced monitoring.
 - The onus of holding mining companies to account falls to the community. Placing a burden on their physical and mental health and resulting in a less productive community. The effort that the community must go through to simply have the regulatory authority even consider a complaint is a mammoth task for an average person. Most don't bother lodging a breach because they know without their own extensive, detailed and justified evidence, the EPA

won't even start to look at it. This means not all issues are being reported, and it paints the report raiser as the problem.

- Regulatory authorities must acknowledge the power imbalance that exists with these projects. They must put more weight on a claim from a local who lives in the area but doesn't have the financial resources of an operator to pay people to say what they need them to. The EPA is the body charged with holding these operators to account. If a report is received, the onus then needs to fall to the EPA with the financial backing and authority to then appropriately assess the claim.
 - Our request to adopt outcomes 2, 5 and 8 will go a long way in improving this.
- e) the effectiveness of the current regulatory framework in terms of monitoring, compliance, risk management and harm reduction from mining activities
- Given the consent conditions that have been imposed on the McPhillamys project, there is no doubt that the required monitoring and management plans will not be adequate to protect the local community. All consent conditions around the environmental and health impacts are enforced via after the fact operator conducted monitoring.
 - No monitoring or inspections are required to be conducted by the regulatory authority which means any and all infringements can easily be manipulated by operators to prevent fines.
 - The regulatory authorities don't know the reality of the harm caused by mining projects as they do not require or conduct any form of ongoing health assessments after proposals are approved.
 - Without the regulatory authority conducting any monitoring, let alone undisclosed monitoring to ensure it reflects true operational conditions, the enforcement of conditions falls again to the community. The EPA fails to act on exceedances or breaches unless they're notified by the community and the community spends their own time and money on gathering evidence for the EPA to even look into any potential breaches. This is an unacceptable system.
 - The process of having the EPA notify operators that they will be completing monitoring defeats the purpose of the actions as it allows the operators to change their actions to lower emissions or intrusions before independent monitoring begins. They then operate at a reduced capacity until the monitoring is completed, and then revert operations to their pre monitoring levels which are exceeding the conditions. We know this occurs at sites across NSW as we've been told from people that have worked as part of mining and processing crews that have been present when these situations occur.
 - Requested outcome items 1, 2, 3, 5 and 8 aim to ensure that consent authorities impose adequate conditions of consent from the start of projects, that then ensure the ongoing monitoring by the regulator achieves effective, tangible, enforceable outcomes for the community, and genuine harm reduction from operators.
- f) the effectiveness of current decommissioning and rehabilitation practices in safeguarding human health and the environment,
- Similar to the notes above, the rehabilitation conditions of consent are vague, difficult to enforce and have no method of accountability if not carried out.
 - There is no ongoing monitoring or progressive checks of rehabilitation either as it occurs, or after it's completed. We know from historical attempts by the McPhillamys Gold proponent that planting tube stock native trees often results in the death of the trees and subsequent failure for them to grow to achieve their intended purpose.
 - The true result of rehabilitation proposals usually can't be measured until many years after mining has ceased as it requires landforms to solidify, trees and seeds to grow, and long term measures to reach maturity. Regulatory authorities take the initial step of creating the intended rehabilitation as the rehabilitation being complete without ensuring it's sustained to achieve it's intended purpose.

- The rehabilitation of mine sites is done within the economic means of proponents, not to the requirements of safeguarding human and environmental health. This is evidenced by the McPhillamys Gold Project's open cut pit being left as a final void simply because it's "uneconomical to rehabilitate", but then the evidence to show this economic impost was never sought after by the DPE or IPC, and does not exist.
 - Associate Professor Gavin Mudd proposed that it could be viable to place the tailings from the McPhillamys Gold Project into the open pit after mining operations as a method to not only refill the void, but also to remove the toxic tailings from the headwaters of the Belubula River (attachment 1). This was not then extensively examined by the proponent simply because it would cost more money to do. The optimum human and environmental health outcomes are sacrificed at the expense of corporate profits to be paid to Directors and overseas shareholders.
 - Adopting requested outcome items 1, 3, 5 and 8 would help alleviate the above issues in the McPhillamys Gold project and also future mining projects.
- g) the effectiveness of New South Wales Government agencies to regulate and improve outcomes including:
- i) the measurement, reporting and public awareness
 - ii) the provision of various protective materials
 - iii) the ability to ensure the health of at-risk groups
 - iv) the suitability of work health and safety regulations, and
 - v) the capacity to respond within existing resources
 - vi) the adequacy of existing work, health and safety standards for workers
- We have covered the failure of every one of the above items in the information in our submission. It is obvious that existing NSW Government agencies do not regulate or improve outcomes for any of the items in i) to vi) above.
 - An item we have not covered is the fact that although the desktop modelling that shows the air quality and noise impacts to residents that reside few hundred metres away, the modelling also shows just how severe the air quality and noise is at the mine site such as next to the processing plant and haul roads. What is not assessed anywhere, nor is it requested by the DPE or IPC, is the impact this has on people that work at the mine sites. These people are within metres, if not centimetres, of machinery, and emissions that are deemed far too unhealthy for humans to be in the presence of. Yet these employees and contractors are exposed to these elements for 12 hour shifts, sometime 7 days per week for years and years. The detrimental impact this has on not only their quality of life, but also life expectancy is never assessed by regulators.
 - During the near half a decade assessment period of the McPhillamys Gold Project, the DPE consulted with our group on one single occasion. This was prior to the three amendments to the proposal, and our submission on the proposal. Following our detailed feedback, and amendments to the project, the DPE chose not to speak to the group which represents the interests of hundreds of the most impacted people of the project. It's obvious that Government authorities either choose not to engage, or don't have the capacity to engage with the community or at-risk groups.
 - We have seriously considered what we believe needs to occur to address the above issues, and we again request that our outcome items 1, 2, 3, 4, 5, 6, 7 and 8 be adopted.
- h) whether the regulatory framework for heavy metals and critical minerals mining is fit for purpose and able to ensure that the positive and negative impacts of heavy metals and critical minerals mining on local communities, economies (including job creation) and the environment are appropriately balanced

- Similar to the above, we have demonstrated clearly that the framework for assessing these projects is not fit for purpose, unless the purpose is to make it appear to the uninformed and uninvolved person that the process is detailed and fair, without actually factoring in real impacts to human or environmental health.
- Claims of economic benefits are grossly overstated and not substantiated once operations commence. Negative impacts are conversely significantly understated, if assessed at all. The fact that 'benefits' are assessed by simply using a figure of employment provided by the proponent, without justification and applying a multiplier, meanwhile impacts are dismissed as being 'difficult to quantify' or being 'offset', demonstrates that the assessment is clearly not appropriately balanced.
- In part of the determination for the McPhillamys Gold Project, the DPE and IPC refer to the project aligning with regional economic development plans. But they neglect to also note that the same plans which list 'support mining' as a minor component of 1 direction of a goal, also list several Goals and directions which conflict or contradict the approval of such projects. As an example, in the 2036 Central West and Orana Regional Plan, the first goal is to have the most *diverse* regional economy in NSW. The approval of another gold mine so close to an existing large-scale gold mine (Cadiala) where the EIS states most residents will come from Orange (which is also where most residents are for Cadiala), demonstrates this will lead to a less diverse workforce and a local economy that is more reliant a single industry. Several directions of this goal centre around the protection and promotion of agricultural land, however approvals of mines result in less land entirely, and any rehabilitated land results in lower productive grades for agricultural purposes. Goal 2 is for a stronger, healthier environment and diverse heritage and yet the approval of mines directly contradicts this. They result in the destruction of decades, if not century old environments, and reduced heritage. Goal 4, and the final one of the plan is about having a more dynamic, vibrant and healthy community and we have discussed in this submission how mining projects directly conflict with this, and result in the opposite.
- This is why we've requested the outcome items 1, 2, 3, 4, 5, 6, 7 and 8 to attempt to more appropriately balance these assessments and ensure the costs are more adequately assessed and quantified.

Yours Sincerely

Daniel Sutton

President – Belubula Headwaters Protection Group