

Submission
No 88

**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: Environmental Defenders Office

Date Received: 11 September 2023

Partially
Confidential



Environmental
Defenders Office

**Submission to the 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**

8 September 2023

About EDO

EDO is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 30 years' experience in environmental law, EDO has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

www.edo.org.au

Submitted to:

Portfolio Committee 2 – Health
Legislative Council
NSW Parliament
By email: PortfolioCommittee2@parliament.nsw.gov.au

For further information on this submission, please contact:

Rachel Walmsley
Head of Policy and Law Reform

Rachael Chick
Senior Solicitor, NSW

Acknowledgement of Country

The EDO recognises First Nations Peoples as the Custodians of the land, seas, and rivers of Australia. We pay our respects to Aboriginal and Torres Strait Islander Elders past, present, and emerging, and aspire to learn from traditional knowledge and customs so that, together, we can protect our environment and cultural heritage through both Western and First Laws. In providing submissions, we pay our respects to First Nations across Australia and recognise that their Countries were never ceded and express our remorse for the deep suffering that has been endured by the First Nations of this country since colonization.

CONTENTS

Introduction

Summary of recommendations

1. **Examples of key impacts (ToR (a)-(c))**
 - Impacts on community health
 - Impacts on water
2. **Compliance and enforcement (ToR(d))**
 - General reluctance to investigate or take enforcement action
 - Community concerns not taken seriously
 - Low rates of enforcement
 - Over-reliance on information provided by the entity under investigation
 - Consistently inappropriate minor enforcement responses against mines
 - Poor communication with communities
 - Retrospectively amending conditions rather than enforcing compliance
3. **Effectiveness of the current regulatory framework (ToR(e))**
 - Independence and role clarity
 - Resourcing
 - Specific feedback on stages and processes under the current regulatory framework
 - Strategic planning
 - Exploration licences
 - Environmental Impact Assessments
 - Granting of development consents - the Independent Planning Commission
 - Review – limits on third party merits review
 - Conditions of consent
 - Modification of consents
 - Environment Protection Licences
 - Monitoring and reporting
 - Improving the overarching pollution regulation framework – enforceable duties
4. **Rehabilitation and decommissioning (ToR(f))**
5. **A new pathway for transition minerals (ToR (f))**
 - EDO principles
6. **ToR (i) Other matters (ToR(i))**
 - Climate change must be embedded in laws
 - Recognise the right to a healthy environment in law

Appendix: Detailed case study: McPhillamys Gold Project

Introduction

Environmental Defenders Office (**EDO**) welcomes the opportunity to make a submission to the Inquiry into the Current and potential impacts of gold, silver, lead and zinc mining on human health, land, air and water quality in New South Wales (**Inquiry**).

As a community legal centre specialising in public interest environmental and planning law, EDO's submission chiefly addresses the Inquiry's terms of reference (**ToR**) that relate to environmental and planning law.

EDO has for decades advocated for the rights and health of communities and the environment in the context of extractive industry. We have seen scores of communities where the legislative framework and regulators have not appropriately balanced the economic benefits of mining with the health, community, and environmental impacts - over-estimating and prioritising the former, while underestimating and undervaluing the latter. Our submission sets out some examples, but is by no means comprehensive. We would be pleased to discuss this further should the Committee wish.

We note that the legislative framework governing coal mining in NSW is broadly the same as that governing gold, silver, lead and zinc mining, and therefore issues that have arisen for communities with respect to coal mines are directly relevant to gold, silver, lead and zinc mining. We discuss relevant examples throughout this submission.

We welcome the timing of this Inquiry given the increased interest in the role 'critical minerals' in the renewable energy transition. The energy transition presents an opportunity to engage with environmental concerns, community consultation processes, and First Nations cultural heritage protection in a different way than has been the historical experience in respect to the fossil fuel industry and other mining developments. Transition minerals should not be exempt from, or fast-tracked' through, environmental impact assessment processes just because of their role in the energy transition. Industry carve-outs historically have been to the detriment of nature, community and human rights. Laws can, and should, be designed to deliver outcomes for climate, nature and communities. EDO has developed principles to help shape this new pathway.

This submission addresses:

- **Examples of key impacts (ToR (a)-(c))**
- **Compliance and enforcement (ToR(d))**
- **Effectiveness of the current regulatory framework (ToR(e))**
- **Decommissioning and rehabilitation (ToR(f))**
- **A new pathway for transition minerals (ToR(h))**
- **Other matters (ToR (i))**

In the **Appendix**, we provide an in-depth case study of the McPhillamys gold mine to illustrate the multiple impacts and challenges that a local community can face from a mining project.

Summary of Recommendations

Recommendations in relation to impacts include:

- Health Impact Assessments, addressing cumulative impacts, must be explicitly required in development assessment laws.
- Decision makers must be required to ensure safe regional air quality through considering cumulative impacts, rather than considering each project in isolation.
- The right to a healthy environment should be enshrined in law in NSW.
- Mining developments should not be approved in the absence of comprehensive baseline data. Baseline data is also vital to subsequent measures of actual (as opposed to predicted) impacts, once development has commenced. Such data further enables the consent authority to either halt development or vary conditions of consent where actual impacts diverge from predicted impacts.
- Ensure comprehensive and continuous monitoring data is publicly available in relation to air, land and water quality around mine sites.

Recommendations in relation to compliance and enforcement include:

- Improve community trust by resourcing dedicated community responses to complaints.
- Increase resourcing to compliance and enforcement agencies.
- Review and strengthen compliance policies of relevant regulators.
- Impose Pollution Reduction Programs as a standard licence condition at the time of licence approval, and for existing facilities, progressively introduce PRPs at the five-yearly licence review.
- Legislate civil penalty provisions (as found in, for example, the *Environment Protection and Biodiversity Conservation Act 1999* (Cth)).

Recommendations regarding the EPA include:

- The EPA should be the primary environmental regulator responsible for regulating activities that may have an impact or present a risk to the environment and for preventing pollution, avoiding environmental destruction and managing waste.
- The EPA should utilise the strong regulatory tools available to it, and implement:
 - Protection of the Environment Policies, so that all regulator agencies are required to ensure ambient environmental conditions are met.
 - Financial assurances to ensure that polluters remain financially responsible for minimising pollution and repairing associated environmental degradation;
 - Capping and allocating the amounts of pollutants that can be emitted into a particular zone, based on the capacity of the receiving environment to maintain its environmental values (bubble licenses);
 - Pollution Reduction Programs should be imposed as a standard, mandatory licence condition. These should require industry to conform to continuous improvement of technology to reduce pollution. Their effectiveness should be audited and assessed at the five-yearly licence review
- Restore community representation on the EPA Board as an important component of improving engagement and public trust.

Recommendation for resourcing:

- Identify additional resourcing, as well as options for industry cost recovery, as essential areas to assist the EPA, DPE and other regulators to achieve objectives to protect and

improve the NSW environment, and to bolster environmental performance monitoring, enforcement and reporting.

Recommendations to improve the current regulatory process

Recommendations for strategic planning include:

- Develop regulatory amendments and provide clearer guidance for proponents, consultants, agencies, decision-makers and communities on how to assess cumulative impacts, and what should be considered at each stage (including strategic planning, major project assessment, and consent conditions if approved).
- Provide certainty for community and industry by establishing ‘no-go zones’ in advance of the predicted expansion of mining of gold, silver, lead, zinc, and other heavy metals or so-called “critical minerals” in NSW. The advance planning and establishment of ‘no-go zones’ is vital to ensure that key environmental and social features are adequately protected.
- Review planning approval regimes to ensure measures such as buffer zones are established between certain activities and residential or agricultural areas.

Recommendation regarding exploration:

- Utilise the Ministerial power to cause environmental impact studies to be carried out prior to the granting of exploration licences.

Recommendation regarding ESD:

- Embed the principles of ESD in all decision-making on mining projects in NSW, and in particular the polluter-pays principle and the principle of distributive equity (that the burdens of a project are not disproportionately borne by those who do not benefit from it).
- that the Mining SEPP should be amended to ensure the ecologically sustainable development of significant mineral resources; and to require that consent authorities consider both the benefits and costs of developing the resource.

Recommendations for EIA:

- Ensure minimum standards of assessment are applied to environmental impact assessments for extractive industries;
- Allocate independent and accredited EIA professionals to major projects rather than have them engaged and briefed by the proponent;
- Require independent peer review of assessments; and
- Require Health Impact Assessments as part of the development assessment process for state significant mining projects.

Recommendation for accountability:

- Reinstate merits appeal rights for third parties as a matter of right, not able to be extinguished by IPC public hearing.

Recommendations regarding conditions of consent and EPL conditions:

- Set measurable limits on the cumulative amounts of pollution allowable at a State, airshed/catchment and site level (for example, via EPA Protection of the Environment Policies);
- Review planning approval regimes to incorporate measures such as buffer zones between certain facilities and residential areas; and
- Develop a framework to implement ‘continual improvement’ and ‘best available technology’ in all industries, including ensuring that the five-yearly review of pollution licences includes a commitment to implementing these principles.

- Conditions of consent for mining projects should require ongoing monitoring modelling, which should in turn be used to inform licensing requirements for the project in question. A more thorough understanding of long-term impacts is required to ensure that ESD is achieved.

Recommendation regarding modifications:

- Clarify the definition of what constitutes ‘minimal environmental impact’. To limit the Minister’s or consent authority’s discretion in this regard, strict criteria or binding guidelines should be established which a decision maker must comply with when determining the environmental impact of a modification.

Recommendations for EPLs:

- The EPA must establish objective, scientifically based levels of acceptable pollution based on the receiving environment’s ability to accept that pollution, and risk-based pollution licensing.
- The EPA must have its licensing function unfettered from the consent authority for state significant developments.

Recommendations regarding duties:

- Establish enforceable legislative duties on the EPA to set and review lists of pollutants and emissions standards, and impose best practice standards on all licensed facilities.
- Impose a general duty on all facility operators to prevent or minimise environmental harm arising from their activities.

Recommendations for rehabilitation and decommissioning include:

- Rehabilitation requirements should be fundamentally strengthened, as a minimum by improving the rehabilitation outcomes required by the Mining Act 1992 (NSW). In applying this requirement, any approvals for mining projects under the EP&A Act must include conditions that specify the minimum, objectively measured, geomorphological, hydrological and ecological rehabilitation requirements to be achieved through rehabilitation.
- Entering care and maintenance should only be permitted in exceptional circumstances and any approval to enter care and maintenance must be based on a transparent assessment process against predesigned criteria and provide clear timeframes for the length of the care and maintenance arrangements.

Recommendations for transition minerals include:

- Development, extraction and processing of transition minerals must be done in accordance with 12 best practice principles to ensure laws are made to deliver outcomes for climate, nature and communities.
- Any proposed transition mineral project must involve consultation with First Nations Peoples that is early, iterative, and culturally appropriate that adheres to the standard of ‘free, prior and informed consent’ under United Nations Declaration on the Rights of Indigenous Peoples.

Recommendations on other matters:

- Climate change considerations must be embedded comprehensively in decision making across mining, planning and pollution laws in NSW.
- Recognise the right to a Healthy environment in NSW law.

1. Examples of key impacts (ToR (a)- (c))

Impacts on community health

ToR (a) The impact on the health of local residents and mine workers, including through biomagnification and bioaccumulation.

In EDO's experience, unchecked extractive industry can have a significant impact on both the health of community members, but also the health, or existence, of the community itself.

For example the Hunter Valley has, over the past two decades, lost many communities due to a lack of balance in the planning system between the benefits and costs of coal mining on communities.¹ The lesson that can be taken from this is that unrestrained and underregulated mining destroys communities.

One of the key health risks many communities near extractive industries deal with is significant air pollution arising from the industry - the extraction and processing of ore, as well as the impacts of large numbers of heavy vehicles and attendant dust and emissions from exhaust. Dust from mine sites, particularly open-cut mine sites, is often laden with heavy metals such as lead, which are known neurotoxins and are particularly harmful for children.

In EDO's experience, community air quality monitoring projects are often pointed to by industry and government as a way of addressing air pollution (frequently air pollution that is largely driven by extractive industry). While this may be useful to demonstrate the scale of the problem, it will do nothing to address the actual sources and impacts of air pollution. Nor will the problem be adequately addressed through local community initiatives such as 'managing individual exposure'.

This is a clear instance where the planning system is failing to deliver clean air for the people of NSW.² It is an example of the distributive inequity of inadequately controlled and regulated extractive industry discussed by Preston CJ in *Gloucester Resources Limited v Minister for Planning*:

'distributive justice concerns the just distribution of environmental benefits and environmental burdens of economic activity. Distributive justice is promoted by giving substantive rights to members of the community of justice to share in environmental benefits (such as clean air, water and land, a quiet acoustic environment, scenic landscapes and a healthy ecology) and to prevent, mitigate, remediate or be compensated for environmental burdens (such as air, water, land and noise pollution and loss of amenity, scenic landscapes, biological diversity or ecological integrity). Issues of distributive justice not only apply within generations (intra-generational equity) but also extend across generations (intergenerational equity)'.³

¹ See, for example ABC News, 13 August 2023, Hunter photographer Zoe Lonergan highlights lasting impact of mines on rural towns — including her own, <https://www.abc.net.au/news/2023-08-13/hunter-photographer-captures-childhood-home-demolished-mine/102620138>

² EDONSW, January 2017, Submission on the Clean Air for NSW Consultation Paper, (**Clean Air for NSW sub**), p 5.

³ *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7, [398].

These issues are illustrated by the following case study.

Case Study: Pollution risks not appropriately considered by the IPC

The Bowdens Silver and Lead Mine was approved by the Independent Planning Commission (**IPC**) in April this year, despite strong and sustained community opposition. The proposed mine is located just 2km from the township of Lue, including Lue Public School.

The Lue Action Group (**LAG**) (now Mudgee Region Action Group) engaged in the process from the very beginning and briefed a series of experts to review the environmental impact statement (**EIS**) documents. LAG provided an [expert report](#) on lead exposure risks to the IPC, which found (amongst other things):

“It is clear that prevailing winds according to Lue Met01 (see the wind rose data in Figure 4.1, p. 2 – 31 in the EIS) will impact the village, and winds according to Lue Met02 aerosols will be dispersed across away from the village toward the north west, towards agricultural lands. Nevertheless, examples of where wind flow is predominantly away (~80 % of the time) from primary receptors such as at Mount Isa, the local community are still causally exposed to lead dust from winds blowing only ~20 % of the time across the mine site towards the city (Taylor et al. 2010).

- A further gap is the cessation of modelling air and human health risks at year 9, the result of which is that it does not seem incorporate any dust generation effects from the tailing storage facility (TSF) after that time and during the post mine period when it is drying out and being reworked. The TSF will by its very nature collect fine particulates. These particulates will have higher metal concentrations due to their small size and higher surface area to volume ratios. In addition, the TSF will be absent any binding organic matter and as it dries out periodically and more permanently it will be subject to remobilisation as dust.*

- A critical issue for the community and agricultural producers is that trace metal and metalloid emissions, including the known toxic substances lead and arsenic, are elemental and accumulate over time in environmental, human and biotic systems. Moreover, the role of wind dispersal and accumulation of contaminated dust on surrounding agricultural produce including grapes and olive berries has not been covered in the EIS. A study of South Australian red wine covering a 50-year period (1963-2012) showed that even though the grapes were washed, the lead concentration in wine corresponded to year matched lead petrol emissions (tonnes of lead petrol emissions; air lead concentrations, $\mu\text{g}/\text{m}^3$ and lead isotopic compositions) in Adelaide ~40 km away (Kristensen et al. 2016).*

- Given that the entire community in and around Lue rely on rainwater tanks for drinking water, any deposition to rainwater (drinking water) tanks, which according to the EIS, have an existing average lead concentration of $5.9 \mu\text{g}/\text{L}$ (> 50 % of the upper maximum value of $10 \mu\text{g}/\text{L}$ for drinking water), would potentially result in exceedance of the Australian Drinking Water Guidelines value for lead (NHMRC 2018).*

The data used in the EIS relating air, dust and human health risks is rather opaque and does not appear to capture properly the true nature of the potential risks, particularly those associated with lead-rich depositions on the surrounding community.

As a consequence, it is not possible to decipher what the real impact will be on the Lue community. This is particularly relevant for those residing in the village, young children attending the local primary school located at ~ 2km from the operations, and agricultural producers who rely on clean air and contaminant-free water.”⁴

Clean air is a fundamental component to health and EDO has made a range of reform recommendations over many years to improve regulation of air quality impacts. For example, in EDO NSW’s 2012 *Discussion Paper - Clearing the air: Opportunities for improved regulation of pollution in New South Wales* (Discussion Paper) - we proposed an approach that:

- a. places duties on regulators and polluters to minimise and, where possible, eliminate pollutants from entering our environment;
- b. sets pollution management on an objective, scientifically-based foundation;
- c. strengthens the role of the EPA in strategic planning and decision making;
- d. strengthens the pollution licencing system and increases transparency around information relating to polluting activities;
- e. enhances and broadens the use of existing tools to minimise pollution loads and drive continual improvement;
- f. strengthens community engagement in pollution management decisions; and
- g. enhances the EPA’s role as an independent regulator.⁵

A key **recommendation** is that **Health Impact Assessments** must be explicitly required by state development assessment laws, and must consider cumulative impacts. Current social impact assessments often focus on economic and other issues without fully exploring the potential health risks of a project. This should include comprehensive mandatory assessment of cumulative impacts of multiple projects in an area, which often occurs when a particular resource becomes valuable to extract (as is likely to be the case with so-called “transition minerals” in future).⁶

In addition to health impact assessments for individual projects, more broadly EDO strongly **recommends** that the right to a healthy environment be enshrined in law in NSW (see below). Doing so would provide additional safeguards for communities seeking to ensure that any extractive industry (including gold, silver, lead, zinc, or “transition minerals”) does not have an adverse effect on the health of NSW residents.

⁴ Taylor, M.P., Isley, C.F., Fry, K. 2020. Comments and assessment of potential lead exposure risks reported in the Bowdens Silver EIS (May 2020). Macquarie University, NSW, Australia.

⁵ Clean Air for NSW sub, p 3.

⁶ Clean Air for NSW sub, p 12.

Impacts on water

ToR (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.

Communities, scientists and conservationists across NSW and Australia continue to express concern about the impacts of extractive industry on water and the environment. This concern is heightened due to relatively weak regulation of this industry and a number of serious examples of water theft and water pollution by the extractive industry.

Many resources that the extractive industry seeks to develop are proximate to townships, areas of agricultural significance, important tourism areas and places of cultural significance. The magnitude of these activities results – and will continue to result – in direct and cumulative impacts on biodiversity, water dependent ecosystems, water and agricultural land.

In addition to the high level of community concern about environmental impacts, there is also a general perception that the regulatory frameworks that govern water use by the extractive industry across Australia jurisdictions are failing to protect the interests of other water users, now and in the future; and failing to fairly and adequately economically value the impacts of the extractive industry on water. These issues are exacerbated by legislation that confers broad discretion on decision-makers to determine how environmental and social impacts will be assessed, and whether or not high-impact extractive projects should be approved.

EDO has written extensively on risks to ecologically sustainable water management in Australia. We refer the Inquiry to our previous work in this area.⁷

Extractive industries impact both surface water and groundwater, but the uncertainty of the environmental impacts of the extractive industry on groundwater are particularly concerning. There remains significant uncertainty as to how many groundwater basins interconnect and therefore the impacts that mining and gas projects will have on our groundwater systems. Despite this uncertainty, the precautionary principle is not being implemented adequately by decision-makers and regulators. This is caused by both lack of political will and because of inadequate legislative provisions which effectively operationalise the precautionary principle.

The provision of comprehensive baseline data is fundamental to understanding whether or not a substantial change to water quality, hydrology or ecosystem function and integrity is likely to result, directly or indirectly, from a mining project. EDO therefore submits that mining developments should not be approved in the absence of comprehensive baseline data. Baseline data is also vital to subsequent measures of actual (as opposed to predicted) impacts, once development has commenced. Such data further enables the consent authority to either halt development or vary conditions of consent where actual impacts diverge from predicted impacts.⁸

⁷ For further discussion of water use in Australia by extractive industries such as mining, see the submission by **EDO to the Inquiry into water use by the extractive industry**. We would be happy to provide further resources on request.

⁸ EDOA 2017, p 20.

Currently in NSW there is insufficient consideration of the water impacts of a project at a catchment level. The quantity of groundwater take by the resource industry can be significant and therefore should be transparently referred to in regional water plans to demonstrate the quantity of resource industry take compared to water availability and competing demands.⁹

Incidental take of water by extractive industry can also have significant environmental impacts. ‘Incidental take’ refers to water that travels through the groundwater system to be released in mine pits or CSG tunnels. Unlike other sources of water take where a change in activity may prevent the water take, incidental take cannot be stopped, even during periods of low environmental flows when other users may be prevented from taking water. This inability to manage water take, and its consequence for the environment and other users, must be considered upfront in environmental assessments. Water law expert Dr Emma Carmody has noted, concerning incidental take in the Hunter coal field, that:

“If we concede that many mines in the Hunter cannot help but continuously extract water from aquifers, this necessarily involves assessing cumulative impacts of mining and other activities at a catchment level, and ensuring that overall development does not exceed the capacity of ecosystems within the catchment.”¹⁰

Discharges from extractive industries can be a significant source of water pollution in many areas. These discharges may be managed, incidental (for example as a result of change to groundwater systems), or as a result of infrastructure failure (for example overtopping of dams during flood events).

Consideration of impacts of projects (including cumulative impacts) must also take into account up-to-date climate projections to properly account for the impacts of water hungry resource development in a future that is likely to be increasingly water-scarce, to ensure there is sufficient clean water for communities and ecosystems into the future. This is not mandated under the current NSW framework governing mining projects.

The concerns set out above at the assessment phase, and generally disregarded by decision-makers and regulators, have been borne out in reality. There are many mining projects in NSW that are not able to purchase adequate surface water or groundwater licences or, if they are, they effectively purchase all the water in a region, displacing agricultural and other uses.¹¹

During drought, much of the modelling relied on to approve mining activities has proved to be flawed.

For example, at Whitehaven’s Maules Creek mine in 2018-2019, the mine ran out of water as the Namoi River dried up.¹² The mine was forced to scale back for a period, and as a result had to build pipelines and purchase further properties with groundwater licences to enable it to continue operations.

Rather than genuinely examining and addressing whether a mine has the requisite licences up front, development consents are subject to conditions stating that mining should be scaled back to the

⁹ EDOs of Australia, 19 December 2017, Submission to the Inquiry into water use by the extractive industry (**EDOA 2017**), p 17.

¹⁰ Carmody, Emma, Exemptions from cease-to-pump rules in the Hunter coal field: mines 1, aquifers 0. Australian Environment Review, Vol 28, No 4, p. 568.

¹¹ For example: <https://www.theland.com.au/story/5931279/water-war-mines-beat-farms-at-water-auction/>.

¹² See <https://www.spglobal.com/marketintelligence/en/news-insights/trending/FuOVkVd2pR7WODQaaFWf6A2>.

extent of the licences the mine is able to obtain. In in EDO's experience, these conditions are rarely (if ever) enforced, even in times of severe water scarcity. For example, South 32's Dendrobium mine in the Sydney drinking water catchment continued to operate for a long period of time without a surface water licence,¹³ and other southern coalfields such as the Metropolitan mine have undermined local creeks.¹⁴

There is very little transparency as to actual water use by mining. Mines are usually given a zero-share water access licence and then trade water to obtain the relevant share. It is not possible to use metering to monitor water use, because the take is incidental groundwater take, from undermining local creeks or from general capture of surface water runoff in the mine pit. EDO understands that even regulators such as NRAR cannot track water use accurately.

The impact of mining on neighbouring landholders is not in practice addressed by conditions imposed on approvals. For example, consent conditions often have compensatory water provisions stating that, if the mine is responsible for groundwater dropping in an area and affecting neighbours, they are entitled to compensatory water. These conditions are very rarely successfully invoked, because their applicability is determined based on the satisfaction of the regulator (DPE), rather than being an objective standard able to be arbitrated in an independent forum, like the Land and Environment Court.¹⁵ The effect of the mine on groundwater is almost impossible for landholders to demonstrate due to lack of baseline data, and determining the extent to which other conditions such as drought have contributed to the impact.

Again, the Bowden's silver and lead mine provides a useful case study about the inadequate consideration of and inadequate weight given to impacts on water resources by decision-makers when determining whether to approve a project.

Case study: Bowdens Silver and Lead Mine

As noted above, the Bowden's Silver and Lead mine was approved by the IPC earlier in 2023 despite evidence of its likely unacceptable impacts on groundwater resources. Expert evidence provided to the IPC by community group LAG found: Groundwater impacts: [Expert report](#), noted:

"As groundwater yields can supply > 5L/s and total dissolved solids are less than 1,500 mg/L, the Fractured Rock aquifer is classed as "highly productive" under the Aquifer Interference Policy. Despite conclusions based on averages portrayed in Table 22 (Jacobs (Australia), 2020, pp. 5-110), there is no consistent evidence of nonpotable water quality in Lue bores from the sampling undertaken. The aquifer around Lue has potable water quality and is used by the villagers. Groundwater quality

¹³ See <https://www.abc.net.au/news/2023-07-11/south32-agrees-to-record-payout-over-sydney-water-supply-take/102586374>.

¹⁴ See https://www.nature.org.au/peabody_mine_threatening_sydney_s_drinking_water_report.

¹⁵ See, for example, comments made by landholder representative Marylou Potts in relation to the proposed compensatory water condition for the Bylong Coal Project at <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2018/10/bylong-coal-project/presentations-and-comments/190206-mlppl-comments-to-ipc-on-kepco-compensatory-water-supply.pdf>.

impacts to WAL 28443 (19 ML/a) NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020 and WAL 29014 (6 ML/a) are also close to Lue Village.

Principles 1 and 3 of the Groundwater Quality Policy 1998 are designed to prevent a deterioration in groundwater quality. Minimal impact includes:

- Less than 2 m decline at any water supply work without make-good provisions
- Any change in groundwater quality should not lower the beneficial use category of the groundwater source beyond 40 m from the activity

From (Jacobs (Australia), 2020, pp. 5-125), potential groundwater quality impacts include:

- Acidification of groundwater and mobilisation of heavy metals due to exposure and oxidisation of potentially acid forming materials associated with groundwater drawdown.
- Salinisation of the final pit lake void.
- Seepage from the TSF and/or waste rock emplacement (WRE).
- Deterioration of the groundwater quality leading to a reduction in the beneficial uses of groundwater.”

Further, in the Surface water: [Expert Report](#), , 14 July 2020, it was stated:

“There are no stated design criteria for the clean water diversions, either during operations or in the final landform. These need to be clearly defined.

There are no details in the assessment of how Bowdens Silver propose to manage the leachate dam post closure and the leachate that this dam collects.

The assessment states that the freeboard on Tailings Storage Facility (TSF) will be 0.75 m. No detail on what level of containment volume this provides. A preliminary review suggests that this is insufficient.”

“The water quality analysis for the final void is limited to salinity with no discussion of the potential long-term build-up of metals in the void lake.

The analysis of the final void does not appear to consider a seepage catchment area which could have the potential to increase inflows into the void. Further, there is no discussion in the assessment of the post closure status of the satellite pits in regard to water recovery levels and potential to interact with other surface water and groundwater systems.”

The Expert report on [lead exposure risks](#) (expert engaged by LAG, consent given to share) MP Taylor, 15 July 2020, stated:

“Given that the entire community in and around Lue rely on rainwater tanks for drinking water, any deposition to rainwater (drinking water) tanks, which according to the EIS, have an existing average lead concentration of 5.9 µg/L (> 50 % of the upper maximum value of 10 µg/L for drinking water),

would potentially result in exceedance of the Australian Drinking Water Guidelines value for lead (NHMRC 2018).”

Recommendations in relation to impacts include:

- Health Impact Assessments must be explicitly required by state development assessment laws.
- Decision makers must be required to ensure safe regional air quality through considering cumulative impacts, rather than considering each project in isolation.
- The right to a healthy environment be enshrined in law in NSW.
- Mining developments should not be assessed in the absence of comprehensive baseline data. Baseline data is also vital to subsequent measures of actual (as opposed to predicted) impacts, once development has commenced. Such data further enables the consent authority to either halt development or vary conditions of consent where actual impacts diverge from predicted impacts.
- Ensure comprehensive and continuous monitoring data is publicly available in relation to air, land and water quality around mine sites.

2. Compliance and enforcement

ToR (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

This section notes a range of issues experienced by EDO clients in relation to enforcement and compliance of mining projects in relation to their impacts. These are:

- General reluctance to investigate or take enforcement action
- Community concerns not taken seriously
- Low rates of enforcement
- Over-reliance on information provided by the entity under investigation
- Consistently inappropriate minor enforcement responses against mines
- Poor communication with communities
- Retrospectively amending conditions rather than enforcing compliance

General reluctance to investigate or take enforcement action

In our experience, there is a reluctance by the EPA to take enforcement action, and particularly to take sufficiently strong enforcement action to provide specific and general deterrence to companies in the extractive industry.

EDO has decades of experience in advising on environmental laws and bringing public interest cases in the NSW Land and Environment Court on behalf of local communities. In some of these cases, civil proceedings were necessary because the EPA refused to take legal action.

In our experience, the EPA has been reluctant to effectively utilise powers already available to it. For example, the EPA has the power to order licenced facilities to implement Pollution Reduction Programs (**PRPs**) to prevent, control, abate or mitigate pollution. PRPs are a potentially powerful but under-utilised tool for reducing pollution. In some cases they have been used inappropriately as a substitute for enforcement action in response to repeated breaches. PRPs are therefore often seen by the community as a weak approach to compliance. EDO **recommends** a better approach to ensure continuous improvement in pollution control may be to impose PRPs as a standard licence condition at the time of licence approval (and for existing facilities, progressively introduce PRPs at the five-yearly licence review).

Community concerns not taken seriously

In EDO's experience, the compliance and enforcement response by agencies to community complaints and concerns in relation to mining is wholly inadequate.

Even if a jurisdiction has strong legislative enforcement provisions on paper, a lack of compliance and enforcement activity can undermine community confidence in the regulation of extractive industry, and have a negative impact on communities, human health, and the environment.

In circumstances where many approvals for extractive industries essentially place the burden of proof of impact on third parties, the lack of government scrutiny can mean impacts, such as health impacts, pollution, and excessive water take, can go unmonitored and unrectified.

Sufficient resourcing and political will must be made available to ensure adequate and effective compliance and enforcement activity.¹⁶

Low rates of enforcement

EDO has reviewed the annual reports and published registers of compliance and analysed the enforcement records of EPA, NRAR and DPE compliance up until 2022. The data shows that both NRAR and DPE compliance have taken significantly less enforcement action in the past two years. There have only been two prosecutions in relation to Maules Creek, in relation to EPA, a case for water pollution and one prosecution by NRAR in relation to unlawful water take. Both DPE, NRAR, EPA have entered into enforceable undertakings instead of prosecutions in several cases involving mining.

Concerns regarding multiple regulators doing different types of enforcement (or failing to do it) and the blurring of policy, approval and enforcement functions is discussed below in relation to role clarity of government agencies.

¹⁶ EDOA water submission, p 15.

Over-reliance on information provided by the entity under investigation

In 2014, following a number of high-profile regulatory failures, the Legislative Council held an inquiry into the performance of the EPA. The report of that inquiry made a number of findings and recommendations. In EDO's experience many of the issues ventilated in that inquiry remain, and are significant barriers to the effective protection of human health and the environment in NSW.

One of these incidents was the EPA's response to groundwater contamination by coal seam gas mining in the Pilliga, which was criticised for (among other things) failing to take community concerns seriously, and relying on information provided by the company under investigation rather than independent experts for its investigation.

Notwithstanding the recommendation of the 2014 EPA Inquiry committee report that "investigations into pollution incidents be led by independent experts working with the EPA, rather than the ... gas company under investigation", in EDO's experience there remains a disproportionate reliance on studies and reports conducted by the entity under investigation (or a consultant briefed and retained by the entity), with very little transparency around the scope of the brief, the methodology, or draft reports. Unsurprisingly, communities have very little faith that such reports are independent or reliable.

Consistently inappropriate and minor enforcement responses against mines

In EDO's experience, there has been a marked reluctance on the part of regulatory authorities to take enforcement action against mines, often contrary to the regulator's own policies, and in the face of clear community concern and evidence provided by local community members.

Community groups have consistently questioned the willingness of a number of NSW regulatory authorities (e.g. EPA, DPE, and the Resources Regulator) to use their considerable powers to regulate polluting industries, and have expressed frustration at a lack of transparency and effective action to prevent or redress pollution, breaches of consents/licences, and community health impacts.

Where compliance and/or enforcement action is taken, it is not proportionate to the harm and is not sufficient for specific or general deterrence, as illustrated below.

Case study: Cadia Valley Operations

From 2020 to 2022, the EPA issued Cadia Valley Operations with 3 penalty infringement notices. Each penalty notice was \$15,000, the largest penalty amount available to the EPA. Two of these were for failure to monitor air quality as required by its EPL. The other, issued in August 2022, related to air pollution from tailings dam dust on 19 April 2022. The media release for this penalty notice noted that this dust pollution event “wasn’t the first time... the failure to maintain the dust suppressant on the tailings storage facilities was a serious matter and had resulted in ongoing dust lifts from the Cadia mine site.”¹⁷ Despite this, and that it was the third penalty notice in less than two years (but by no means only the third non-compliance within that timeframe¹⁸), only a penalty notice was issued for the maximum \$15,000 fine. Had the matter been prosecuted, a penalty of up to \$1 million could have been imposed. Penalty notices are intended “for breaches when the facts are clear and a penalty notice is likely to deter the person, business or organisation from further breaches” and “are designed primarily to deal with one-off breaches that can be remedied easily.”¹⁹ It is clear that a penalty notice was inappropriate in circumstances where the breach was not a one-off, and where penalty notices had not previously deterred breaches.

For context, during the 2021-2022 financial year, Newcrest posted a \$872 million profit for Cadia Valley Operations, and held \$2.4 billion in cash and committed undrawn bank facilities.²⁰ A \$15,000 penalty notice is not a sufficient penalty to deter an entity of this size.

Penalties, even for the most serious offences, are too low to act as a deterrent, with the maximum fines that can be issued in relation environmental and pollution offences being manifestly inadequate in the context of developments costing and making many millions of dollars. This means that environmental crime is simply part of the cost of doing business.²¹ This is completely ineffective from a regulatory perspective, it is not punitive and will act as neither specific nor general deterrence.

The relevant Acts, and in particular the POEO Act, do not contain civil penalties, which are common in comparable Commonwealth legislation (e.g. the EPBC Act), and provide for significant penalties at the lower civil standard of proof (with the correlative lack of opprobrium said to arise from criminal convictions). A lack of civil penalty provisions deprives regulators of another choice of response to contraventions of the law, and this lack of flexibility may mean that more minor enforcement

¹⁷ <https://www.epa.nsw.gov.au/news/media-releases/2022/epamedia220825>

¹⁸ See, for example, non-compliances listed in the annual returns for 2019/2020; 2020/2021; and 2021/2022, available at <https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=5590&id=5590&option=licence&searchrange=licence&range=EO%20licence&prp=no&status=Issued>

¹⁹ EPA Regulatory Policy, p 31.

²⁰ https://www.newcrest.com/sites/default/files/2022-08/2220819_Newcrest%202022%20Full%20Year%20Results%20%E2%80%93%20Market%20Release_3.pdf

²¹ See also the extremely low penalties arising from even successful prosecutions for environmental crime. For example in March 2023, in *WaterNSW v Peter James Harris and Jane Maree Harris* [2023] NSWLEC 33, irrigators Peter and Jane Harris were fined only \$60,000 for illegally taking nearly 2 billion litres of water in a drought: <https://www.edo.org.au/2023/03/30/60k-fine-for-illegally-taking-2-billion-litres-of-water/>.

approaches are preferred because of the weight of seeking criminal penalties. Civil penalties should be considered for environmental and planning law contraventions.²²

Poor communication with communities

There are no fewer than four main regulators²³ and many more regulatory frameworks that apply to mining activities in NSW (this is discussed further in relation to ToR (e) below). This complexity means that there is scope for buck-passing of responsibility by regulators when responding to community concerns, and that some issues can fall between the gaps. Further, not all of the relevant regulators are independent, which is explored further below.

Community members commonly call EDO about pollution and environmental matters relating to mining that have been raised with the EPA, DPE and other regulators, but remain unresolved.

It is vital that regulators, including the EPA, make clear to the community who is responsible for a given issue, and what steps will be taken to investigate and resolve pollution issues. Regulators also need to work more closely with each other and the community to minimise the risk of confusion, 'buck-passing' or unresponsiveness.

Case study: Coal mining comparison

In relation to coal mining (and combustion), the approach to community complaints about air pollution and associated health impacts in the Hunter Valley illustrates current problems with how mining is regulated in NSW.

A common scenario is that a local community will complain, provide evidence of non-compliance, and the EPA/DPE will simply vary the relevant condition rather than seek to take enforcement action in relation to the breach.

Coal dust pollution in the Hunter Valley was examined by the Inquiry into the performance of the EPA in 2014, which noted criticisms of the EPA's regulation. Since that inquiry, there has been significant amount of further scientific knowledge on the impact of air pollution on human health, as well as the impact of climate change on health and communities. Despite this, there has been a massive expansion of coal mining in the Hunter. In the EDO's experience, air pollution in the Hunter remains very poorly regulated, with communities bearing the brunt and coal companies reaping the profits.

That such an expansion has occurred at all, with DPE recommending approval of almost all applications for new mines or expansions, demonstrates the imbalance of both the regulatory framework governing approvals, and the priority placed on industry over local communities. Cumulative impacts continue to not be adequately considered.

²² Discussed at length in Australian Law Reform Commission, *Principled Regulation: Federal Civil and Administrative Penalties in Australia*, Report 95, 2003, available at <https://www.alrc.gov.au/wp-content/uploads/2019/08/ALRC95.pdf>

²³ The NSW Environment Protection Authority, the Department of Planning and Environment, the Resources Regulator, and the Natural Resources Access Regulator.

An illustration of the importance of requiring decision-makers to consider the cumulative health impacts of projects is the recent decision to approve the extension of the Mount Pleasant open cut coal mine in the Upper Hunter Valley, 3km from Muswellbrook (estimated population of 16,500 people). Although a health assessment for the extension was required, there was no requirement to consider cumulative impacts. The mine said that, although the area was already above safe thresholds for air quality, they could “manage” the additional impacts of the individual extension project.

However, the advice from the NSW Health Department (Hunter New England Local Health District) was that (emphasis added):

“There is no evidence of a threshold below which exposure to particulate matter (PM) is not associated with health effects. Therefore, it is important that all reasonable and feasible measures are taken to minimise human exposure to PM, even where assessment criteria are met. Both the modelling, and the actual air monitoring results for Muswellbrook show exceedances of NEPM standards for PM₁₀ and PM_{2.5}. While it is understood that there are multiple sources contributing to the PM levels in Muswellbrook, **that is not an acceptable reason to allow further increases that may impact on the health of residents of this area.**”

Despite this, the IPC found that the additional impacts of the project could be acceptably managed, and the Mount Pleasant extension was approved. It is expected to operate until 2048.

Health impacts do not discriminate between whether air pollution is arising from multiple sources or not. Health Impact Assessments for project EIAs must consider the receiving environment (for example, the regional airshed and its air quality) in assessing health impacts. EDO strongly **recommends** that decision makers must be required to ensure safe regional air quality through considering cumulative impacts, not each project in isolation.

Retrospectively amending conditions rather than enforcing compliance

Further undermining the confidence of communities in regulation of the extractive industry and reinforcing the perception of regulatory capture is that a common response of regulators to a breach of conditions, even one with significant environmental impacts, is to retrospectively regularise the offence by amending licence or consent conditions.

For example, communities near Maules Creek and other Whitehaven mines in the Namoi alerted the EPA and DPE that the mines had been illegally burying tyres from their trucks and equipment onsite in the pit, potentially leaving significant risk of pollution from leaching and contamination/rehabilitation issues over time. After an EPA investigation, it cautioned Maules Creek, and then simply amended the licence conditions to enable dumping to continue to occur, rather than requiring the mine to recycle the tyres in other ways.²⁴ There are other options for recycling but they are more expensive, so rather

²⁴ <https://www.theguardian.com/australia-news/2022/jan/22/locals-devastated-after-whitehaven-coal-allowed-to-bury-used-tyres-at-maules-creek-mine>

than impose the costs of recycling on the mine, the community is faced with the cost of pollution, in direct contradiction of the polluter pays principle. Since that investigation, other mines have been also allowed to vary their condition to allow continued dumping that commenced unlawfully.

Recommendations in relation to compliance and enforcement include:

- Improve community trust by resourcing dedicated community responses to complaints, improving role clarity of agencies
- Impose Pollution Reduction Programs as a standard licence condition at the time of licence approval, and for existing facilities, progressively introduce PRPs at the five-yearly licence review.
- Legislate civil penalty provisions.

3. Effectiveness of the current regulatory framework

ToR (e): The effectiveness of the current regulatory framework in terms of monitoring, compliance, risk management and harm reduction from mining activities.

In responding to this term of reference it is necessary to consider the current roles of different agencies in monitoring, compliance, risk management and harm reduction, as well as the stages in the development assessment and approval process where impacts can and should be addressed and managed.

This section therefore addresses:

Independence and role clarity

Role of the EPA

Resourcing

Specific feedback on stages and processes under the current regulatory framework

- **Strategic planning**
- **Exploration licences**
- **Environmental Impact Assessments**
- **Granting of development consents - the Independent Planning Commission**
- **Review – limits on third party merits review**
- **Conditions of consent**
- **Modification of consents**
- **Environment Protection Licences**
- **Monitoring and reporting**

Improving the overarching pollution regulation framework – enforceable duties

Independence and role clarity

EDO has often heard community members and community groups express concerns that the various NSW regulators, and in particular the EPA and DPE, are not independent, are over-identified with industry or that there has been “regulatory capture” of the regulators by those it is regulating.

Role clarity, or perhaps streamlining the number of regulators, is essential for regulators to fulfill their functions effectively. Having a clearly defined role reduces actual or perceived conflicts and enables regulators to fulfil their purposes without duplicating or detracting from the role of other entities.

Role clarity requires that:

- a regulator is clearly defined in terms of its objectives, functions, and co-ordination with other entities;
- a regulator’s purposes and the regulatory scheme’s objectives are clear to staff and stakeholders; and
- the functions of a regulator are assigned so that the performance of any one function should not limit or appear to compromise the regulator’s ability to fulfil its other functions.²⁵

With respect to the latter, there is a tension between regulators on the one hand approving development and licensing pollution and on the other, effectively enforcing compliance. Conversely, however, there should be a clear delineation between the agencies with licensing and approvals functions and the agency (or agencies) responsible for enforcing compliance with those approvals.

There is a strong perception in the community of a lack of independence by the EPA, DPE and other regulators from the mining industry, in the assessment and approval stage of the process, and also when it comes to compliance and enforcement (as noted above).

Although much of this, in our view, relates to resourcing, and organisational and political will, some relates to the regulatory framework, or the way in which the regulatory framework is currently utilised.

Role of the EPA

Specifically in relation to the role of the EPA, we refer the Committee to the following resources:

- In 2022, EDO released a report, ***Implementing effective independent Environmental Protection Agencies in Australia***²⁶
- See also the EDO’s recommendations for empowering the NSW EPA at: ***Empowering the NSW EPA to Prevent Climate Pollution***²⁷
- We also refer the Committee to our ***Submission to the Legislative Council inquiry into performance of the NSW Environment Protection Authority*** prepared by EDO NSW August

²⁵ See Effective EPAs Report, p 30. <https://www.edo.org.au/wp-content/uploads/2022/01/Implementing-effective-independent-EPAs-in-Australia-Report.pdf>

²⁶ <https://www.edo.org.au/wp-content/uploads/2022/01/Implementing-effective-independent-EPAs-in-Australia-Report.pdf>

²⁷ <https://www.edo.org.au/2020/11/26/empowering-the-nsw-epa-to-prevent-climate-pollution/>

2014.²⁸ The submission examined four key areas necessary for effective regulator: 1. The use of regulatory tools 2. Community awareness, involvement and access to information 3. Compliance monitoring and enforcement 4. The regulatory context, resourcing and government priorities, and made a number of recommendations.

- The **EDO Report: Clearing the Air** made 33 reform recommendations across five key areas: the overarching regulatory framework (recommendations 1-2); strategic planning and cumulative impacts (3- 6); pollution management and licensing (7-17); community engagement (18-24) and compliance and enforcement (25-33). The report proposed improvements to pollution management in NSW that would: place duties on regulators and polluters to minimise and prevent pollution; set pollution management on a more objective and holistic foundation; strengthen the EPA's role in strategic planning and decision-making; strengthen pollution licencing and transparency of information; broaden use of existing tools to minimise pollution and drive continual improvement; strengthen community engagement in pollution management decisions; and enhance the EPA's role as an independent regulator.

Although progress has been made in some areas, the experience of EDO and its clients is that the EPA continues to inadequately regulate mining in NSW, at the expense of human and environmental health. This is demonstrated by the fact the community affected by the Maules Creek coal mine has recently had to commence proceedings against the EPA for failing to consider pollutants and whether the mine was a fit and proper person in undertaking a review of a licence.²⁹

More specifically, EDO **recommends** that the EPA should utilise the strong regulatory tools available to it, and implement:

- Protection of the Environment Policies, so that all regulator agencies are required to ensure ambient environmental conditions are met.
- Financial assurances to ensure that polluters remain financially responsible for minimising pollution in accordance with polluter pays principle and repairing associated environmental degradation;
- Capping and allocating the amounts of pollutants that can be emitted into a particular zone, based on the capacity of the receiving environment to maintain its environmental values (bubble licenses);
- Pollution Reduction Programs should be imposed as a standard, mandatory licence condition. These should require industry to conform to continuous improvement of technology to reduce pollution. Their effectiveness should be audited and assessed at the five-yearly licence review.

Restoring community representation on the EPA Board would be an important component of improving engagement and public trust. If 'business expertise' is to be represented community expertise should also be represented.³⁰

²⁸https://edonsw.dev.lavalizard.com.au/d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/1609/attachments/original/1409538568/140898_Inquiry_into_EPA_performance_-_EDONSW_submission.pdf%3F1409538568

²⁹ <https://www.edo.org.au/2023/09/05/epas-duty-to-regulate-methane-emissions-to-be-tested-in-court/>

³⁰https://edonsw.dev.lavalizard.com.au/d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/1609/attachments/original/1409538568/140898_Inquiry_into_EPA_performance_-_EDONSW_submission.pdf%3F1409538568 p 15

The discussion of compliance and enforcement inadequacies above raises the question of whether it is efficient to have several regulators doing different types of enforcement and taking different approaches, given the significant budgets involved. The EPA is an independent regulator. EPA also undertakes both enforcement and policy/approval functions, as does DPE. DPE is not an independent compliance regulator as a branch of the Department and can be directed by the Minister in relation to its compliance functions. NRAR is also a quasi-independent authority managed by a Board, that has recently become solely an enforcement agency dealing with water, with its approval functions referred to DPE. There is also a separate unit undertaking enforcement for native vegetation and biodiversity related enforcement within DPE (EES). There are other enforcement functions undertaken throughout government including fisheries, forestry (private native by DRE) and mine safety/rehabilitation/mining and exploration leases that also cross-over with these issues.

Best practice regulation suggests policy and enforcement operations should be separated.

Having multiple environmental regulators is ineffective and can undermine and confuse the role of the EPA. EDO **recommends** that the EPA should be the primary environmental regulator responsible for regulating activities that may have an impact or present a risk to the environment and for preventing pollution, avoiding environmental destruction and managing waste. Role clarity is essential for effective regulation, particularly in the complex realm of environmental regulation and management, where environmental protection can be undervalued as against imperatives of development.³¹

Recommendations regarding the EPA include:

- The EPA should be the primary environmental regulator responsible for regulating activities that may have an impact or present a risk to the environment and for preventing pollution, avoiding environmental destruction and managing waste.
- The EPA should utilise the strong regulatory tools available to it, and implement:
 - Protection of the Environment Policies, so that all regulator agencies are required to ensure ambient environmental conditions are met.
 - Financial assurances to ensure that polluters remain financially responsible for minimising pollution and repairing associated environmental degradation;
 - Capping and allocating the amounts of pollutants that can be emitted into a particular zone, based on the capacity of the receiving environment to maintain its environmental values (bubble licenses);
 - Pollution Reduction Programs should be imposed as a standard, mandatory licence condition. These should require industry to conform to continuous improvement of technology to reduce pollution. Their effectiveness should be audited and assessed at the five-yearly licence review
- Restoring community representation on the EPA Board would be an important component of improving engagement and public trust.

³¹ See EDO EPA report.

Resourcing

Broadly there is a need to improve the environmental effectiveness, community engagement, governance, administration and enforcement of environmental laws. The EPA and other environmental agencies need sufficient staff and budgets (resourcing) to implement programs, monitor compliance and enforce breaches. Otherwise, NSW laws cannot be efficiently or effectively implemented. Regulatory resources must also keep pace with industry expansion, to avoid increased risks to communities and the environment.

Recommendation for resourcing:

- That the Committee identify additional resourcing, as well as options for industry cost recovery, as essential areas to assist the EPA, DPE and other regulators to achieve objectives to protect and improve the NSW environment, and to bolster environmental performance monitoring, enforcement and reporting.

Specific feedback on stages and processes under the current regulatory framework

In this section we discuss further detail on the current regulatory framework around mining in NSW, EDO and its clients' experiences with this regulatory framework, and recommendations for improvement. Given the complexity of this regulatory framework, what follows is by no means comprehensive. For an overview of the regulation of mining in NSW, please see EDO's fact sheet on *Mining and Coal Seam Gas in NSW*.³²

In EDO's experience, **the current regulatory framework in NSW for heavy metals and critical minerals mining, as for all mining, is not fit for purpose**. It does not, in practice, ensure the appropriate assessment and balance of the positive and negative impacts of mining. Further, it does not ensure that the negative impacts of mining are minimised to the greatest extent possible to preserve the health of communities and the environment. There are many communities and ecosystems in NSW that have been needlessly exposed to pollution from extractive industry due to inadequate regulation (including inadequate compliance and enforcement).

In order to assess whether the current regulatory framework is effective or fit for purpose as ToR (e) and (f) ask, it is necessary to consider each stage at which mining in NSW is or should be governed, including the decision to open up particular areas for mining, the decision to grant exploration licences, environmental assessment and approvals and pollution licences, as well as post-approval matters such as compliance and enforcement and impacts on communities.

Strategic planning, mineral titles release and exploration stage

Cumulative impact consideration must be mandatory at each stage

Decisions at each stage of strategic planning, development assessment and pollution control should be required to consider, address and manage the cumulative impacts of existing and emerging

³² <https://www.edo.org.au/wp-content/uploads/2023/04/210615-Mining-and-Coal-Seam-Gas-in-NSW.pdf>

pollution sources in a strategic manner. This is not currently done consistently or effectively, and means that communities bear the brunt of impacts in circumstances where several resources projects are approved in an area (which is often the case, given the nature of mineral resources).

Decision-makers should be required to take into account a plan or project's cumulative impacts in any decision on whether to approve it, and must reject the plan or project if these impacts will degrade the receiving environment (for example, the airshed). Strengthening the EPA's role in developing solutions to regional pollution hotspots could support this, through tools such as Protection of the Environment Policies, which have not been used to date.³³

EDO **recommends** the development of regulatory amendments and clearer guidance for proponents, consultants, agencies, decision-makers and communities on how to assess cumulative impacts, and what should be considered at each stage (including strategic planning, major project assessment, and consent conditions if approved).³⁴

- **Strategic planning**

It is imperative that strategic, long term, planning is done about the future of extractive industry in NSW. Not to do so means being reactive to proponents and invariably results in communities that bear the impacts of projects that they were not expecting and had not planned for. This can result in prolonged social, political, and legal battles which are costly and stressful for communities and industry alike.

In several areas of NSW, for example, the Gloucester area, the Liverpool Plains, and the Bylong Valley, extractive industries have sought to establish themselves in greenfield locations of agricultural significance. Exploration licences were granted, and development consents sought, against community sentiment and increasingly powerful community campaigns. The vanguard projects – the Rocky Hill coal mine, AGL Gloucester gas exploration, Shenhua Watermark coal mine, and Bylong Coal Project – were ultimately defeated, either in the courts, or in the political realm, because communities did not want them and the sites were inappropriate for the development in question. These protracted battles could have been avoided had long-term land-use planning and genuine community consultation been done up front, within the context of a planning framework where decision-makers were empowered to decide up front whether a development is a clearly unacceptable land use.

The planning framework does pay lip-service to this, through the “gateway” process, in which development applications for proposed state significant mines on land mapped as significant for agricultural, viticultural, or equine industry reasons, must be accompanied by a ‘gateway certificate’. In practice, in EDO's experience, it is very rare for a gateway certificate not to be granted. An example of strategic planning for resources use that acknowledges competing and often incompatible land uses is the NSW Strategic Release Framework for Coal and Petroleum Exploration, which commenced in December 2017, however as currently applied, this has not resolved many competing issues.

³³ Clean Air for NSW sub, p 5.

³⁴ NSW EIA sub, p 11.

We strongly **recommend** that real and inviolable ‘no-go zones’ are established in advance of the predicted expansion of mining of gold, silver, lead, zinc, and other heavy metals or so-called “critical minerals” in NSW. The advance planning and establishment of ‘no-go zones’ is vital to ensure that key environmental and social features are adequately protected. This is necessary because, as can be seen in the cases of the Bylong Valley, Liverpool Plains, and Gloucester area, coexistence is, in certain circumstances, not possible. This is particularly true where one land use, for example large mining development, erodes the viability of another use, for example agriculture, or residential. In the case of agriculture, this erosion may be due to land acquisition, or alternatively environmental impacts including ongoing air pollution, or diminished water quality and quantity.³⁵

It should also be made clear to proponents at the scoping stage what environmental impacts are considered unacceptable so that proponents can decide whether to progress development applications with an understanding of the ‘red lights’ that will apply to their project. This is one benefit of identifying high conservation value areas. Red lights should also be considered for agricultural land, cultural heritage, and water resources in addition to biodiversity.

We **recommend** a review of planning approval regimes to incorporate measures such as buffer zones between certain activities and residential or agricultural areas.

Rather than limit the extent of consultation early in the exploration process, the emphasis should be on full consultation as early as possible to ensure that the community is fully informed and able to engage through the entire exploration and, potentially, extraction process. Early engagement in good faith can be critical in reducing future land use conflict.

Recommendations for strategic planning include:

- The development of regulatory amendments and clearer guidance for proponents, consultants, agencies, decision-makers and communities on how to assess cumulative impacts, and what should be considered at each stage (including strategic planning, major project assessment, and consent conditions if approved).
- To provide certainty for community and industry, we recommend that ‘no-go zones’ are established in advance of the predicted expansion of mining of gold, silver, lead, zinc, and other heavy metals or so-called “critical minerals” in NSW. The advance planning and establishment of ‘no-go zones’ is vital to ensure that key environmental and social features are adequately protected.
- A review of planning approval regimes to ensure measures such as buffer zones are established between certain activities and residential or agricultural areas.

³⁵ See EDOA Submission to the Inquiry into water use by the extractive industry https://edonsw.dev.lavalizard.com.au/d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/5465/attachments/original/1516834670/171219_EDOA_submission_Water_use_by_the_extractive_industry.pdf%3F1516834670

- **Exploration licences**

Independent environmental impact studies undertaken at the pre-exploration stage can dramatically reduce the environmental impact of future mining development.

When deciding whether to grant or refuse an exploration licence application, the Minister must take into account “the need to conserve and protect the environment in or on the land over which the authorisation is sought” (Mining Act Schedule 1B Part 2, cl 3(1)). Clause 3(2) gives the Minister the power to cause environmental impact studies to be carried out to assist in the decision-making process. In our view, this is an appropriate time for these studies to be carried out, as opposed to the development consent stage. This power allows the Minister to request independent studies over the exploration area (if public money is spent on these studies the Minister can require the applicant to reimburse the government (cl 3(3)). These studies will then inform the Minister of local environmental sensitivities and may lead to the exploration application area being reduced (the Minister has the power to reduce the area of land applied for in the application (s 22(1)(a)).³⁶

Care must be taken at the exploration stage to consider the potential impacts of proposed production. In EDO’s experience, it is extremely rare for a mining lease not to be granted over an area for which there is an exploration licence and a mining lease is applied for. This is reflected, in the onshore petroleum context, by the former Chief Scientist in her independent review of coal seam gas activities in NSW in the observation that “the discretion to grant a PEL or PAL [for CSG exploration] needs to be exercised with care, as once it is awarded, it is very difficult to restrict the production phase.”³⁷

Recommendation: The Minister utilise the power to cause environmental impact studies to be carried out prior to the granting of exploration licences.

- **Environmental impact assessments, approvals, and licensing**

In order for the regulatory framework to truly ensure that the positive and negative impacts of mining on local communities, economies (including job creation) and the environment are appropriately balanced and that there is appropriate risk management and harm reduction, the principles of

³⁶ **3 Protection of the environment must be taken into account in considering applications**

(1) *The relevant decision-maker must take into account the need to conserve and protect the environment in or on the land over which the authorisation is sought (or, in the case of a variation, to which it applies) in considering an application to which this Schedule applies.*

(2) *The relevant decision-maker may cause such studies (including environmental impact studies) to be carried out as the relevant decision-maker considers necessary to assist in making a decision on the application.*

(3) *If public money is spent under subclause (2) in having studies carried out or engaging persons to provide advice, the relevant decision-maker may, by written notice, require the applicant concerned to reimburse the Government, within the time specified in the notice, for the money, or any part of the money, reasonably incurred.*

(4) *The relevant decision-maker may recover from the applicant any unpaid amounts specified in the notice as a debt in a court of competent jurisdiction.*

³⁷ NSW Government, Chief Scientist & Engineer Final Report of the Independent Review of Coal Seam Gas Activities in NSW – Study of regulatory compliance systems and processes for coal seam gas, September 2014, Appendix 2, p. A-32:

ecologically sustainable development (**ESD**) must be embedded in the design, assessment and approval of major projects. This includes:

- a. a precautionary approach to uncertainty, risk and minimising serious harm;
- b. that ensuring a clean and healthy environment is a fundamental consideration;
- c. considering the distributive equity or inequity of the project (intra-generational equity);
- d. maintaining healthy environments and ecosystems, assessing the costs and benefits of development, and equitably sharing these, for this and future generations (inter-generational equity); and
- e. internalising the full social and environmental costs of major development across the project lifecycle (e.g. examining public health consequences, carbon emissions, polluter-pays incentives, rehabilitation costs).

Recommendation: Embed the principles of ESD in all decision-making on mining projects in NSW, and in particular the polluter-pays principle and the principle of distributive equity (that the burdens of a project are not disproportionately borne by those who do not benefit from it).

- **Environmental Impact Assessments**

There is an urgent need for minimum standards of assessment to be applied to environmental impact assessments for extractive industries. Projects that do not provide sufficient information to understand the true environmental and social impacts should not be able to be approved. Inadequate upfront impact assessment raises concerns about the true environmental, social and economic impacts of extractive projects. At an operational level, it also leads to wasted resources of the community and the assessing authority being forced to respond to applications without all of the necessary information before them.

A significant weakness of the current regulatory framework is the lack of truly independent expert evidence as to the potential impacts of a particular proposal and overreliance on expert evidence provided by the proponent.

There is a perception in the community, and in particular those communities that have engaged in the planning process, that professionals involved in the EIA process are “guns for hire” on behalf of the proponent, rather than as independent professionals providing objective technical information and advice to the decision-makers. To counter this, and to strengthen decision-making, EDO **supports** independent accreditation of all EIA consultants in each discipline (including economic).

However, accreditation is only one piece of the puzzle. It must be supported by independently allocating consultants to major projects, to reduce the potential risk of proponent pressure or public perceptions of bias. Above all, EIA information should be objective information to inform the decision-maker. Reliable information could then be aggregated for reuse.³⁸

³⁸ EIA NSW sub, p 9.

In many cases, concerned communities remain forced to commission their own peer review or independent scientific, economic, or health expert reports to gain a more robust understanding of the likely impacts of a proposed development. Even where a community does have sufficient resources to undertake independent assessment, this is not appropriate to expect of the community.

There is significant community concern about proponent-led assessment robust assessment of the true risks and benefits of development. Proponents should bear the costs of assessment, but there must be safeguards so that community members feel they can trust the process.³⁹

This could be done through, for example, the role of an independent peer reviewer or other objectivity requirements. Importantly, peer review should include an open and transparent assessment of the work undertaken, not a narrowly defined review focused on specific aspects of a project.

Insufficient upfront assessment is leading to a high reliance on adaptive management conditions and post-approval development of impact assessment reports and management plans. Further, assessments such as cost-benefit analysis cannot be undertaken with any legitimacy if the environmental, economic and community costs posed by a project are not properly understood. Adaptive management should not be used as a tool to avoid rigorous and comprehensive upfront assessment or to avoid setting specific, measure limits on project impacts.

In the context of the extractive industry and ever-increasing understanding of the impacts of air pollution on human health, Health Impact Assessments should be mandated as part of the development assessment process for state significant mining projects. This should include comprehensive mandatory assessment of cumulative impacts of multiple projects in an area.

See EDO NSW's Submission on the EIA Improvement Project – Environmental impact assessment for major projects prepared by EDO NSW November 2016,⁴⁰ which identifies a number of areas for improvement.

Recommendations for EIA:

- Minimum standards of assessment should be applied to environmental impact assessments for extractive industries;
- accredited EIA professionals should be independently allocated to major projects rather than engaged and briefed by the proponent;
- independent peer review of assessments should be required; and
- Health Impact Assessments should be mandated as part of the development assessment process for state significant mining projects.

³⁹ EIA NSW sub, p 6

⁴⁰ EDO NSW. November 2016, Submission on the EIA Improvement Project – Environmental impact assessment for major projects, https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/3395/attachments/original/1480370759/EIA_improvement_-_major_projects_-_EDONSW_submission_Nov_2016_.pdf?1480370759 (EIA NSW Sub)

- **Granting of development consents by the Independent Planning Commission**

The consent authority (decision maker) for a development application for extractive industry is usually the Independent Planning Commission (**IPC**). Invariably, the IPC chooses, or is directed to hold a public hearing into large or contentious extractive industry developments. This extinguishes merits appeal rights for communities.

Adding to the concern of communities about the quality and independence of the assessment of impacts and benefits before the IPC, is that there is no real avenue for the evidence provided by the proponent to be tested as part of a public hearing before the IPC. This is in contrast with merits reviews conducted in the Land and Environment Court, where the evidence of the proponent and the objector are tested forensically.

As to the decision-making itself, there is a strong perception in the community that decisions are weighted heavily in favour of the proponent, regardless of the costs of a project.

For instance, the McPhillamy's Gold Project (see **Appendix**) was approved in March 2023 by the IPC following a public hearing despite a significant amount of expert evidence provided by EDO's client, the Belubula Headwaters Protection Group (**BHPG**) as to the significant and potentially devastating risks of that project to the surface and groundwater resources on which the community (including agricultural enterprises) relies.

Similarly, the Bowdens Silver and Lead Mine was approved by the IPC in April 2023 this year, despite strong and sustained community opposition. As noted above, the proposed mine is located just 2km from the township of Lue, including Lue Public School. It is to be located in an agricultural district that is famed for its viticulture.

The Lue Action Group (**LAG**) (now Mudgee Region Action Group) engaged in the process from the very beginning and briefed a series of experts to review the project documents. Despite serious concerns about the risks of the project to the health of the community due to lead exposure, and to water resources, the IPC considered that the mine would be in the public interest and approved it.

Further, although the EP&A Act has in its objects "to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment"⁴¹, an aim of the State Environmental Planning Policy (Resources and Energy) 2021 (**Mining SEPP**), a critical component of decision making on development applications of mining, is "to promote the development of significant mineral resources."⁴²

In order to maintain public trust and integrity of decision-making, and to ensure that the benefits and costs of projects are properly balanced, we **recommend** that the Mining SEPP should be amended to promote the *ecologically sustainable* development of significant mineral resources; and to require

⁴¹ EP&A Act, s 1.3(b).

⁴² Mining SEPP, cl 2.1(c).

that consent authorities consider both the benefits and costs of developing the resource (that is, the positive and negative impacts of the proposed project).

Recommendation: that the Mining SEPP should be amended to ensure the ecologically sustainable development of significant mineral resources; and to require that consent authorities consider both the benefits and costs of developing the resource.

For further information and recommendations from EDO, see the EDO NSW Submission to the Review of the NSW Independent Planning Commission (2019).⁴³ We would also be happy to provide the Committee with our recent *Briefing Note: Improving the NSW IPC Hearing Process*, 2023.

- **Review: Third party merits review rights are essential**

Discretionary removal of merit appeal rights via IPC public hearings has eroded confidence in the fairness of approval processes for resource projects. IPC public hearings are not a substitute for merit appeal rights for interested parties.

The effective removal of third party merits review – particularly for resource projects - deprives the broader public of the benefits of good decision-making in environmental matters and serves to undermine the integrity of the planning system. The consistency, quality and accountability of decision-making by merits review undertaken by the Land and Environment Court contrasts with weaker decision-making, poorer outcomes and the inferior processes in public hearings held by the Independent Planning Commission.

The flow on result is that communities are disempowered and alienated by both the extinguishment of their merits review rights and the weakening of decision-making in environmental matters which, in turn, undermines the integrity of the NSW planning system.

Even though community appeal rights to the courts are rarely exercised when they are available, their role as a safety valve for independent oversight is widely recognised, and too important to be overridden at the discretion of the government.

Recommendation: Merits appeal rights for third parties must be reinstated as a matter of right, not able to be extinguished by IPC public hearing.

For further information and recommendations from EDO, please see the EDO NSW **Discussion paper on Merits review in Planning in NSW** (2016).⁴⁴

⁴³ <https://www.edo.org.au/wp-content/uploads/2019/12/Submission-to-the-Review-of-the-Independent-Planning-Commission-NSW.pdf>

⁴⁴ Available at https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/2998/attachments/original/146777537/EDO_NSW_Report_-_Merits_Review_in_Planning_in_NSW.pdf?146777537#:~:text=Merits%20review%20is%20usually%20heard,and%20a%20Commissioner%20sitting%20together.

- **Conditions of consent**

There are a range of issues with the current system of conditions of consent that illustrates failures to effectively address impacts on communities and the environment. For example, insufficient upfront assessment is leading to a high reliance on adaptive management conditions and post-approval development of impact assessment reports and management plans. Also, utilising adaptive management conditioning often means there are no substantive limits on the impacts of a project, often rendering conditions so flexible as to be unenforceable.

There are a number of necessary reforms. In the interests of accountability and enforceability, proponents should not be able to design their own preferred, flexible conditions through, for example, post-approval management plans. Conditions of consent should be a mix of prescriptive, process and outcome-based conditions. Conditions must be SMARTER⁴⁵ and capable of being objectively assessed, rather than a matter for the discretion of the regulator. For example, currently, conditions of consent regularly include the need to meet a condition ‘to the satisfaction of the Secretary’. This is inappropriate where objective, scientifically based targets can be set.

Recommendations: Specific actions for improvement of conditions of consent and EPL conditions in NSW should include:

- measurable limits must be set on the cumulative amounts of pollution allowable at a State, airshed/catchment and site level (for example, via EPA Protection of the Environment Policies);
- review of planning approval regimes to incorporate measure such as buffer zones between certain facilities and residential areas; and
- developing a framework to implement ‘continual improvement’ and ‘best available technology’ in all industries, including ensuring that the five-yearly review of pollution licences includes a commitment to implementing these principles.

- **Modification of consents**

In EDO’s experience, changes to conditions of development consents can often be made without community input, notwithstanding that the changed conditions have an impact on the community itself.

Such modifications are purportedly made under s 4.55(1A) of the EP&A Act, on the basis that the consent authority (usually the Department) is satisfied that the modification is of “minimal environmental impact”. However, there is no definition or guidance on what constitutes “minimal environmental impact”, and it is in effect almost entirely discretionary.

This has led, in EDO’s experience, to situations where changes are made to projects that have an impact on the community, without the community being given an opportunity to comment.

Further, in practice, modifications happen routinely – especially in the mining sector – and mean that the final project may last much longer, or be far more expansive, than first approved. Modification

⁴⁵ Specific, Measurable, Achievable, Relevant, Timely, Evaluate, Re-evaluate

processes need to respond to changing conditions, including environmental, social and economic conditions. However the current process sees high scrutiny and community engagement focus on the upfront approval, and relatively little on modifications.

This modification process can therefore wear down concerned communities and contribute to mistrust of the EIA process (or that the process is 'loaded' towards expanded approvals). It is important that neither the community nor proponents see the initial approval being the 'thin edge of the wedge' – either to allow repeated modifications that provide for less input and scrutiny; or as a way to undertake projects that would have been rejected, had they been considered in their entirety at the time of approval. To do this, initial approvals cannot be allowed to be utilised in this way, and decision-makers must consider the cumulative impact of the proposed project as modified, rather than viewing a modification as a small change with a relatively small impact.

Recommendation regarding modifications:

- Further clarification is needed on what constitutes 'minimal environmental impact'. To limit the Minister's or consent authority's discretion in this regard, strict criteria or binding guidelines should be established which a decision maker must comply with when determining the environmental impact of a modification.

- **Environment Protection Licences**

Under the POEO Act, extractive industry is required to have an environment protection licence (**EPL**) to carry out its activities. The EPA is required to consider a number of important factors in determining whether or not to grant a licence, and what conditions to place on it. However, where the licence is being granted for the first time, and is for activities that are also state significant development (which mining generally is), the EPA cannot refuse to grant the EPL and is required to issue the licence substantially consistently with the development consent.⁴⁶ However, after the first review period of an EPL (five years), or for an application for renewal of an EPL, there is no ongoing requirement to re-issue or for conditions to be substantially consistent with the development consent.

This requirement effectively sterilises the role of the EPA at the project assessment and approval stage, and is entirely at odds with risk-based regulation. State significant development is development that will likely have higher environmental, social, and health impacts. The EPA should be empowered to make its own decision as to the acceptability of the proposal based on its mandate as an independent environmental regulator with responsibility to reduce the risks to human health and prevent the degradation of the environment.⁴⁷

EDO **recommends** that licensing of polluting facilities, including mines, should be based on objective standards that maintain environmental health, rather than procedural requirements that do not consider the receiving environment, or on a decision made by a separate agency under a different framework. For example, the EPA should be required to reject a pollution licence application unless the applicant can demonstrate there will be no net degradation in the quality of the receiving

⁴⁶ EP&A Act, s 4.42(1)(e).

⁴⁷ *Protection of the Environment Administration Act 1991*, s 6(1)(b)

environment. This should also apply to applications for initial EPLs for SSDs. Additional considerations, such as whether the licence holder is a fit and proper person, and long-term impacts of the proposed facility, should also be considered.⁴⁸ In EDO's experience, these matters are not routinely considered, even in circumstances such as following licence reviews, when they can be.

For example, recently local residents affected by the Maules Creek coal mine have appealed to the Land and Environment Court in relation to the EPA's decision to renew the EPL for that mine, alleging that the EPA failed to consider the extensive history of environmental and pollution law breaches and environmental damage by the proponent and associated entities, as well as failing to consider the environmental and health impacts of the mine's operations.⁴⁹

A key criticism of the current system is that it is primarily administrative in nature. There are currently no overarching standards that define 'acceptable' levels of pollution, with no set standards under which these matters must be considered and no consideration of the long-term impact of pollution on the receiving environment or on nearby communities. This makes the decision to grant or renew a licence highly discretionary.

Adequate environmental pollution management in NSW requires a significant shift in emphasis. EDO **recommends** that the EPA must establish objective, scientifically based levels of acceptable pollution based on the receiving environment's ability to accept that pollution, and risk-based pollution licensing.⁵⁰ It must have its licensing function unfettered from the consent authority for state significant development.

Community participation in licensing decisions and reviews is not mandated and in practice is extremely rare. This should not be the case. Often community members will be directly affected by the decisions made by the EPA in licensing. It is arguable that communities have an administrative law entitlement to be consulted in these decisions. It is imperative for the social licence of the regulated industry for the community to participate in and genuinely be taken into account in licensing decisions (especially those affecting the health and amenity of the locality).

Genuine participation in pollution regulation requires a formal process for public notification and consultation on licensing decisions, together with measures aimed at assisting community members to engage in an informed and meaningful manner in these and related processes (including policy changes). This is not currently reflected in the POEO Act.

Stronger use should be made of available pollution reduction mechanisms, including to manage cumulative impacts and embed continual improvement.

We also note the recommendation in the NSW Chief Scientist's report on the NSW Coal Chain that:

NSW needs to adopt a two-pronged approach to air quality monitoring. One prong would maintain the State's current focus on background ambient air quality by way of its well-structured network of

⁴⁸ Clean Air for NSW sub, p 5

⁴⁹ See <https://www.edo.org.au/2023/09/05/epas-duty-to-regulate-methane-emissions-to-be-tested-in-court/>.

⁵⁰ See Submission on risk-based pollution licensing and the Protection of the Environment Operations (General) Amendment (Licensing Fees) Regulation 2013 (Nov. 2013)

*NEPM monitors. The second prong would be a more systematic focus on spatial and temporal distribution of air pollutants associated with pollutant-generating sources extending the approach of local monitoring required of some licensed industry activities; and broadening this to other locations and pollution sources which may or may not be subject to licenses.*⁵¹

The regulatory framework and regulators need a more systematic focus on key sources and pollution hotspots (e.g. the Hunter Valley and air pollution from coal mines and power stations), with sector-specific actions and timeframes.⁵²

Recommendations for EPLs:

- The EPA must establish objective, scientifically based levels of acceptable pollution based on the receiving environment's ability to accept that pollution, and risk-based pollution licensing
- The EPA must have its licensing function unfettered from the consent authority for state significant developments.

- **Monitoring and reporting**

A major flaw in the regulatory regime around mining in NSW is overreliance on monitoring and reporting conducted by the proponent, or by a consultant directly engaged, briefed, and paid by the proponent.

In its May 2012 report, the Legislative Council Inquiry into the impacts of CSG concluded:

It is inexcusable that this pollution went undetected by NSW Government authorities, despite community complaints, until Santos admitted many months later that a breach had occurred. ... This incident demonstrates the weakness in Government monitoring and enforcement activities.... Given this example... the Committee must be sceptical of the claim by the industry that all coal seam gas companies are meeting their licence conditions...

Unfortunately, despite changes made since that time, monitoring and enforcement remains a significant weakness in the regime governing pollution by extractive industry in NSW.

For instance, despite ongoing community complaints since 2020 about visible dust plumes rising from Vent Shaft 8 at **Cadia Valley Operations (CVO)**, air pollution emissions at 18 times the maximum set out in the *Protection of the Environment Operations (Clean Air) Regulation* was not picked up by monitoring required under its EPL or by EPA investigations of community complaints. Rather, it was quantified by an independent air quality audit strongly advocated by the community and

⁵¹ NSW Chief Scientist & Engineer Final Report on the Independent Review of Rail Coal Dust Emissions Management Practices in the NSW Coal Chain August 2016

⁵² Clean Air for NSW sub, p 5

subsequently required by the Department of Planning and Environment in relation to an application to significant expand operations at CVO.⁵³

It was only in June 2023 -three years after the issue was first brought to the EPA's attention- that CVO was required under its EPL to install a monitoring point at this highly visible point source of air pollution.

While all modelling involves uncertainty, monitoring can provide a more accurate reflection of extraction levels over time. As such, EDO **recommends** that conditions of consent for mining projects should require ongoing monitoring modelling, which should in turn be used to inform licensing requirements for the project in question. A more thorough understanding of long term impacts is required to ensure that ESD is achieved.

Recommendation: Conditions of consent for mining projects should require ongoing monitoring modelling, which should in turn be used to inform licensing requirements for the project in question. A more thorough understanding of long term impacts is required to ensure that ESD is achieved.

Improving the overarching pollution regulation framework – enforceable duties

EDO **recommends** that the EPA's responsibilities for regulating air, water and land pollution should be specified in the legislation as enforceable duties. These duties should require that the EPA sets and reviews lists of pollutants and emissions standards, and impose best practice standards on all licensed facilities. Legislation should impose a general duty on all facility operators to prevent or minimise environmental harm arising from their activities.

For further information on recommended EPA duties – see: *Implementing effective independent Environmental Protection Agencies in Australia*.⁵⁴

Recommendations for duties:

- Establish enforceable legislative duties on the EPA to set and review lists of pollutants and emissions standards, and impose best practice standards on all licensed facilities.
- Impose a general duty on all facility operators to prevent or minimise environmental harm arising from their activities.

⁵³ See Zephyr Environmental, 11 August 2022, Cadia Valley Operations Independent Air Quality Audit, <https://media.caapp.com.au/pdf/tnwrjx/7d34220b-ce50-476e-8215-55ce5a160590/Cadia%20Independent%20Air%20Quality%20Audit%20August%202022.pdf>, p 25.

⁵⁴ <https://www.edo.org.au/wp-content/uploads/2022/01/Implementing-effective-independent-EPAs-in-Australia-Report.pdf>

4. Rehabilitation and decommissioning (including rehabilitation bonds)

ToR (f) the effectiveness of current decommissioning and rehabilitation practices in safeguarding human health and the environment

There is clear evidence from around the country, including NSW, that the current approach to security deposits is an insufficient guarantee that the community will not be left to foot the bill for mine rehabilitation.

One significant area of concern that must be addressed is the ability of mines to use ‘care and maintenance’ to avoid rehabilitation. The ability to enter care and maintenance, and the timeframes over which it can be applied, are highly subjective and there is strong evidence that companies are currently using care and maintenance as a way to avoid rehabilitation liability. EDO **recommends** that entering care and maintenance should only be permitted in exceptional circumstances and any approval to enter care and maintenance must be based on a transparent assessment process against predesigned criteria and provide clear timeframes for the length of the care and maintenance arrangements.

The significant problems with rehabilitation and decommissioning of mines in NSW have been canvassed widely elsewhere, including the 2017 NSW Auditor-General’s Report Performance Audit - Mining Rehabilitation Security Deposits.⁵⁵

We also refer the Committee to the EDO NSW, 2018, ***Improving mine rehabilitation in NSW – Discussion Paper***. In this Discussion Paper we **recommended** that rehabilitation requirements should be fundamentally strengthened, as a minimum by improving the rehabilitation outcomes required by the Mining Act 1992 (NSW).

In applying this requirement, any approvals for mining projects under the EP&A Act must include conditions that specify the minimum, objectively measured, geomorphological, hydrological and ecological rehabilitation requirements to be achieved through rehabilitation. Such an approach would provide for far greater certainty in rehabilitation outcomes compared to the current approach of basing completion criteria on biophysical activities and modelled trajectories of recovery.

Much stronger monitoring frameworks covering longer timeframes are required to ensure that the proposed rehabilitation trajectories are being met and functional systems are ultimately achieved.

A key policy principle should be to commit NSW to world’s best practice mine rehabilitation, without limitation.

Many approved rehabilitation proposals commit to biodiversity outcomes that are not likely to arise. For example, there is currently no evidence that it is possible to restore Warkworth Sands Woodland, an endangered ecological community, despite the fact that the approval for the Warkworth Extension Project relies on the ability to do so. This problem is not unique to NSW but applies to many NSW mining projects. For example, we refer to EPBC Act approvals for the Mount Pleasant and Maules

⁵⁵ Report available at: <https://www.audit.nsw.gov.au/news/mine-rehabilitation-security-deposits>.

Creek coal mines in NSW, which today still do not have all their offsets in place for the impact that each project has had on the critically endangered White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community (**White Box EEC**), despite the sites being cleared in 2015 and 2014 respectively. By 2021, the proponent of the Mt Pleasant coal mine, MACH Energy Australia Pty Ltd, had cleared approximately 426.39 ha of White Box EEC and the Maules Creek coal mine operator, Ashton Coal 2 Limited had cleared 540 ha of White Box EEC. This clearing has still not been offset with multiple extensions granted over 9 and 6 years respectively.

Consideration of the feasibility of rehabilitation proposals, should also consider the timelines required for adequate rehabilitation.

Recommendations for rehabilitation and decommissioning include:

- Rehabilitation requirements should be fundamentally strengthened, as a minimum by improving the rehabilitation outcomes required by the Mining Act 1992 (NSW). In applying this requirement, any approvals for mining projects under the EP&A Act must include conditions that specify the minimum, objectively measured, geomorphological, hydrological and ecological rehabilitation requirements to be achieved through rehabilitation.
- Entering care and maintenance should only be permitted in exceptional circumstances and any approval to enter care and maintenance must be based on a transparent assessment process against predesigned criteria and provide clear timeframes for the length of the care and maintenance arrangements.

5. A new pathway for transition minerals

ToR (f): 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.

As noted throughout this submission, the current regulatory framework is not fit for purpose in terms of effectively addressing the range of impacts that mining has on communities and the environment. In this context, any suggestion of fast-tracking transition mineral projects is of concern. Fast tracking of high impact projects is inappropriate and exacerbates impacts and community distrust. More broadly, there is a significant tension between, on the one hand, the desire to 'streamline' EIA processes for major projects (or bypassing standards such as environmental agency concurrence, threatened species protections and exclusions); and on the other hand, the desire to improve EIA quality, consistency and public trust.

Recent CSIRO social research on public attitudes to mining is instructive. It found: "... there is a risk that streamlining government approval processes may be perceived by the public as reducing the capacity of governments to hold the mining industry to account against its environmental impact commitments and conditions. Paradoxically, reducing the legislative and regulatory burden on industry may make it easier to get a mine approved and operating, but may simultaneously erode public confidence in legislative and regulatory power, which may reduce the acceptance of mining

more broadly and make it harder to operate a mine efficiently under conditions of increased social conflict.”⁵⁶ This tension is particularly relevant to transition mineral projects.

As noted in the introduction, EDO has been developing principles on transition minerals. These are set out below.

EDO Principles for transition mineral projects

This case study sets out best practice principles for projects relating to extraction and processing of minerals required for the renewable energy transition (‘transition minerals’).⁵⁷

General position:

- To meet the Paris Agreement Goal of limiting global temperature rise to 1.5 degrees Celsius, there needs to be a large-scale energy transition from fossil fuels to renewable energy. There are significant opportunities for Australia to be a leader in renewable energy technology and production, and there is an urgent need for renewable energy projects and transmission capacity to be operational as soon as possible to meet legislative targets. Australia also has a role in supplying minerals necessary for the energy transition.
- In acknowledging this, we also acknowledge that renewable energy and transition mineral projects will have impacts and, in some instances, significant consequences. The urgency of the decarbonisation task should not be to the detriment of First Nations communities, ecological sustainability and environmental integrity, Australia’s human rights obligations, or our Pasifika neighbours. The climate and biodiversity crises – and solutions – are intrinsically linked, and tackling emissions reductions to the detriment of biodiversity is not an ecologically sound approach.
- The energy transition presents an opportunity to engage with environmental concerns, community consultation processes, and First Nations cultural heritage protection in a different way than has been the historical experience in respect to the fossil fuel industry and other mining developments. Transition minerals should not be exempt from, or fast-tracked’ through, environmental impact assessment processes just because of their role in the energy transition. Industry carve-outs historically have been to the detriment of nature, community and human rights. Laws can, and should, be designed to deliver outcomes for climate, nature and communities.

⁵⁶ Moffat et al. (2014), Australian attitudes towards mining - citizen survey report 2014, CSIRO, p 14, at <http://www.csiro.au/en/Research/MRF/Areas/Community-and-environment/Resources-in-the-community/Attitudes-to-mining-survey>.

⁵⁷ EDO strongly support a **transparent and scientific** approach to updating Australia’s Critical Minerals List that more comprehensively factors in environmental and social implications and circular economy potential for minerals under consideration. EDO is concerned that given significant benefits that will potentially apply to listed minerals (for example, ‘streamlined’ and ‘certain’ environmental approvals, and access to funding as noted in the Critical Minerals Strategy), there will be significant lobbying by industry for minerals to be listed. This reinforces the need for any updates to the list to be transparent and scientific.

Environmental Defenders Office supports the following 12 principles for decision-making in relation to transition mineral projects:

- 1. Rapid energy transition:** Australia must reduce greenhouse gas emissions consistent with a carbon budget based on science and our international commitments to keep global warming under 2 degrees Celsius and pursue a limit of 1.5 degrees Celsius above pre-industrial levels. The scientific, social, economic, human rights and environmental imperatives for limiting warming to 1.5 degrees Celsius are clear. This requires laws that **prohibit new fossil fuel projects**, and facilitate an economy-wide transition to renewable energy.
- 2. Human rights and environmental justice:** All decisions and activities relating to transition mineral projects must be consistent with and consider Australia's international and domestic human rights obligations, and in particular the substantive and procedural elements of the right to a healthy environment, and environmental justice principles. Particular attention should be given to the rights and needs of overburdened people and communities, including First Nations Peoples. Government departments and Australian corporations must also act consistently with their responsibilities under the United Nations Guiding Principles on Business and Human Rights (**UNGPs**), including the corporate responsibility of Australian corporations to respect human rights, and Australia's responsibility to protect against human rights abuses from third parties including Australian corporations.
- 3. First Nations consultation and consent:** Any proposed transition mineral project must involve consultation with First Nations Peoples that is early, iterative, and culturally appropriate that adheres to the standard of 'free, prior and informed consent' under UNDRIP.⁵⁸ First Nations Peoples must be empowered and resourced to engage in the design, delivery and benefits of projects, policies, and decision-making processes relating to transition minerals mining and renewable energy infrastructure, as they see fit.⁵⁹
- 4. Community engagement, consultation & social licence:** Proposals for transition mineral projects should be supported by best practice community engagement and consultation. There are significant benefits of early and open engagement with communities about project siting, design, impacts and benefits. This can reduce land-use conflicts, delays and costs. The agency/decision maker responsible for developing regional energy plans, and assessing/ approving individual projects and developments, should ensure best practice community consultation is undertaken in seeking local community's social licence to

⁵⁸ The principle of **free, prior and informed consent** (FPIC) is enshrined in articles 19 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples. FPIC is the right of Indigenous Peoples to give or withhold consent to any project that may affect them or their lands, and to negotiate conditions for the design, implementation and monitoring of projects. Implementation of FPIC is critical and must apply in relation to any projects relating to renewable energy or critical minerals in Australia.

⁵⁹ See: [Best Practice Guides - First Nations Clean Energy Network](#) Best Practice Principles for Clean Energy Projects. See also: The ANU Centre for Aboriginal Economic Policy Research has collated [best practice principles](#) for the negotiation and implementation of renewable energy project agreements with First Nations Peoples and communities. Where relevant these principles should apply to the development of renewable energy projects in Australia.

operate. This includes early iterative, culturally appropriate consultation. This community consultation should complement principles relating to ensuring FPIC of First Nations.

- 5. Ecologically sustainable development:** Development of transition mineral projects must be undertaken in accordance with principles of ecologically sustainable development. The principles include the precautionary principle, conservation of biological diversity and the principle of intergenerational equity.⁶⁰ Decision-making must be based on the best available science and apply the precautionary principle where there is a lack of scientific certainty.

- 6. Regional planning and strategic environmental assessment** – Siting of proposed transition mineral projects should be consulted upon early and strategically (and within a coherent strategic framework designed to meet state energy and emissions reduction targets). Transition mineral planning should form part of regional renewable energy planning and robust strategic environmental assessment (**SEA**) that should be used to:
 - collect environmental data for areas identified for potential transition mineral related development. In addition to data on available mineral resources, this includes (but is not limited to) data on biodiversity, ecology and ecosystem services, hydrology – groundwater, surface water, wetlands, and natural and cultural heritage;
 - where possible identify/prioritise projects on land which has previously been developed, impacted or degraded, including existing infrastructure corridors, (noting that where this land may still have cultural value, including intangible values, impacts are avoided);
 - identify sensitive areas to be off limits (including, for example, national parks, World Heritage areas and values, high conservation value land, critical habitat, wetlands, culturally significant sites);
 - Consider and address/mitigate cumulative impacts; and
 - based on environmental sensitivity mapping and comprehensive data collection (noting that not all values can be mapped), identify transition mineral precincts or zones where projects and infrastructure can be progressed in accordance with the principles of ecologically sustainable development.^{iv}

- 7. Unacceptable impacts:** Areas where proposals will be clearly unacceptable should be identified and protected upfront. This should include, for example, culturally significant sites, national parks, World Heritage areas and values, national heritage areas; the marine estate; high conservation value land; critical habitat, wetlands, as identified under the *Environment Protection & Biodiversity Conservation Act 1999* (Cth) and/or relevant state or territory legislation. Water availability and hydrological impacts may also be unacceptable for some projects under climate change. Australia must also support an international moratorium on deep sea mining. Renewable energy developments and renewable energy products such as solar panels and wind turbines must not use deep sea mined minerals in projects or manufacture.

⁶⁰ The **principles of ESD** are contained in the National Strategy for Ecologically Sustainable Development (**NSES**) and later adapted in the Council of Australian Governments' Intergovernmental Agreement on the Environment (**IGAE**). The NSES and the IGAE were, in turn, implemented in domestic legislation to give effect to the Rio Declaration on the Environment and Development and Agenda 21.

- 8. Project design to avoid and minimise impacts:** Relevant government departments (including the new national EPA) must be adequately resourced to assist proponents of transition mineral projects to understand their obligations under relevant legislation and locate and design projects in a way that will meet relevant legislation/ National Environmental Standards.v As noted for energy planning, where new developments are required, they should avoid impacts on matters of national or state/territory environmental significance, then demonstrably minimise impacts by project design adjustments. Offsets must only be used as a genuine last resort - any residual impacts that are unavoidable (ie, cannot be avoided or mitigated) should be offset, applying best practice offset principles including clear requirements for net gain, like for like, additionality and in perpetuity protection. Law reform is needed to improve existing inadequate offsetting regimes that lack integrity and fail to deliver environmental outcomes. Offset projects that have co-benefits and that align with First Nations interests should be supported.
- 9. Transparent and accountable decision-making:** Assessment and decision-making in relation to all transition mineral projects must be transparent and comprehensive. Merits review rights should be available to provide for better scrutiny of decisions, and to ensure decision-maker accountability. Strong third-party enforcement rights similarly empower citizens to hold decision-makers and proponents to account, and these measures must be backed up by easily accessible and timely information on all projects, decisions, and conditions.
- 10. Minimise impacts on water resources:** Transition mineral projects must demonstrably avoid, mitigate or minimise (within clear limited allocations) impacts on natural surface and groundwater flows, for the cleaning and maintenance, development, construction, use and operations related to transition mineral projects.
- 11. Full life cycle recycling, rehabilitation and restoration:** There should be fully funded rehabilitation, restoration, and recycling plans required for end of project works (ie, full lifecycle impacts addressed). Projects should be funded to ensure that the rehabilitation and restoration of project sites is addressed, including early in the approval process. In relation to transition minerals, recycling and re-use should be prioritised and factored into demand projections, rather than policy designed on unlimited extraction.
- 12. Mandatory Due Diligence and Enforceable Remedies:** To ensure Australia and Australian corporations abide by the standards set out under Pillars I and III of the UNGPs, and to address adverse environmental and human rights risks arising out of Australian mining and energy corporations' domestic and global operations and renewable energy supply chains, Australia must implement mandatory environmental and human rights due diligence and enforceable remedies via national legislation. This legislation must impose mandatory due diligence obligations on Australian domiciled corporations, that require the identification of risks of environmental harm and human rights abuses arising out of the corporation's domestic and extraterritorial activities, subsidiary activities, contractor and commercial partner's activities and in their supply and value chains. These due diligence obligations must be enforceable by affected parties and provide a mechanism for effective remedy for

the victims of an Australian corporation's activities, subsidiary activities, contractor and commercial partner's activities and in their supply and value chains. This remedy mechanism must be accessible and applicable for victims of extraterritorial environmental harm and human rights abuses.

6. ToR (i) Other matters

Climate change must be embedded in laws

Climate change impacts must be explicitly identified and addressed. In particular, considerations include the impact of climate change on local conditions such as drought (increasing fugitive dust emissions), water scarcity (in the context of extractive industry that requires exponentially more water than communities, and than most agriculture, thereby increasing scarcity for communities), increased natural disasters (such as floods and fires) and their impacts on infrastructure (such as overtopping tailings dams polluting river systems and groundwater), and increased and more intense heatwaves (and the impact on the mine workforce).

For recommendations on how to embed climate considerations into NSW laws, we refer the Committee to:

- [Climate-ready planning laws for NSW: Rocky Hill and beyond - Environmental Defenders Office \(edo.org.au\)](#)
- [Empowering the NSW EPA to Prevent Climate Pollution - Environmental Defenders Office \(edo.org.au\)](#)

Recognise the right to a Healthy environment in law

EDO has done extensive work on the best ways to establish a right to a Healthy environment in Australian laws. This is relevant to considerations on how best to effectively and systemically deliver environmental justice. This is particularly critical for overburdened communities who currently bear the burden of impacts from mining projects. We refer the Committee to our analysis at: [New Report: A Healthy Environment is a Human Right - Environmental Defenders Office \(edo.org.au\)](#) We would be happy to provide the Committee with other resources and recommendations on this topic.

Appendix: Case study: McPhillamys Gold Project

We provide this in-depth case study to the Committee as it illustrates the multiple impacts and challenges that a local community can face from a mining project.

McPhillamys Gold Project: Background

The McPhillamys Gold Project (**McPhillamys**) was approved by the NSW Independent Planning Commission (**IPC**) on 30 March 2023. McPhillamys comprises of an open cut gold mine, and associated 90km underground water supply pipeline, which will extract 60.8 million tonnes of ore (2 million ounces of gold) over 11 years of mining operations.

McPhillamys was strongly opposed by community members including neighbouring land holders and First Nations people. EDO represented the Belubula Headwaters Protection Group (**BHPG**), the lead objector, during the IPC public hearing for McPhillamys for the purpose of the IPC's assessment of the Project, including assisting the BHPG to make written and oral submissions to the IPC.

The BHPG is a large community organisation, representing members who reside in the area of the mine, including local farmers and Aboriginal people. Our client and its constituent members strongly opposed McPhillamys due to the impacts of the development on the environment, Aboriginal cultural heritage and the broader social and economic fabric of the local community.

The BHPG engaged scientific experts as well as legal counsel to provide written and oral evidence at the IPC's public hearing for McPhillamys.

After reading the IPC's Statement of Reasons for its decision, our client was disappointed about the perceived lack of attention to its concerns, and the IPC's strong reliance on the proponent's assertions and the Department of Planning, Industry and Environment's (**Department**) advice. It is also a key issue of concern for EDO that, while the community raised significant issues with McPhillamys, supported by numerous detailed independent scientific reports, the IPC preferred information provided by the proponent and the Department.

This case study elaborates on how the Conditions of Consent, which were determined by the IPC in its approval decision, do not adequately address our client's concerns.

The Project and its Environmental context

The Project is situated in the headwaters of the Belubula River. The Belubula river is one of two major river systems in the Lachlan Catchment and an important water source relied upon by members of our client group, Traditional Owners and the environment.

The region has a very variable climate and is extremely vulnerable to the interaction between over-extraction and climate change, and rainfall patterns that can lead to extreme droughts and severe floods.⁶¹

The open cut pit is proposed to be 450m deep and will not be rehabilitated. As such, water will continue to drain from aquifers and connected surface water into the pit for at least the next 500 years.⁶²

The tailings dam is proposed to be constructed in the headwaters of the Belubula River. It will hold approximately 46,700ML of tailings and span an area of 273 hectares, at capacity.⁶³

Water for processing the ore will be supplied via the associated water supply pipeline, transferring surplus wastewater from coal mining and electricity generation near Lithgow at a rate of approximately 13 megalitres per day.

Critical minerals/metals justification

EDO and BHPG are concerned that the Department's assessment report justified McPhillamys, on the basis of an increasing focus on minerals mining in NSW. This was said to be connected to a decreasing reliance on coal and fossil fuels in the mining and energy sector.

It was also said to be associated with a growing demand for raw metals such as gold,⁶⁴ because of 'the transition out of fossil fuel-based industries into the renewable energy sector'.⁶⁵ However, the *NSW Critical Minerals and High-Tech Metals Strategy*, which sets NSW's focus for industries including renewables,⁶⁶ does not identify gold as a critical metal/mineral resource.⁶⁷

Further, according to the Department's own evidence, the global demand for gold is in fact driven by the jewellery industry (approx. 55.4%), the investment sector (approx. 25%) and the central

⁶¹ Department of Planning, Industry and Environment, Draft Lachlan Regional Water Strategy 2020 (Report, Sept 2020) p 12 https://www.dpie.nsw.gov.au/_data/assets/pdf_file/0019/324514/lachlan-strategy.pdf.

⁶² Regis Resources Limited, McPhillamys Gold Project Amendment Report (Report, September 2020) p 37 <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9505%2120200908T074625.049%20GMT>.

⁶³ Regis Resources Limited, McPhillamys Gold Project Amendment Report, (Report, September 2020) p 44 <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9505%2120200908T074625.049%20GMT>.

⁶⁴ NSW Department of Planning and Environment, McPhillamys Gold Project Assessment Report (Report, November 2022) [489] <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/referral-from-dpe/mcphillamys-gold-project--assessment-report.pdf>.

⁶⁵ NSW Department of Planning and Environment, McPhillamys Gold Project Assessment Report (Report, November 2022) [21] <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/referral-from-dpe/mcphillamys-gold-project--assessment-report.pdf>.

⁶⁶ NSW Government, 'Critical Minerals and High-Tech Metal Strategy' (web page, accessed 4 September 2023) <https://www.nsw.gov.au/regional-nsw/critical-minerals-and-high-tech-metals-strategy>.

⁶⁷ NSW Department of Planning and Environment, McPhillamys Gold Project Assessment Report (Report, November 2022) [20] <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/referral-from-dpe/mcphillamys-gold-project--assessment-report.pdf>.

banks sector (approx. 11.3%). The technology sector only accounts for 8.2% of the demand for gold.⁶⁸

Accordingly, EDO and the BHPG do not consider there was a strong case for justifying the McPhillamys on the basis of the State's transition to renewables, nor did the Department's materials substantiate any such case. We are concerned that mines such as McPhillamys will be promoted under the guise of being legitimate means for lowering Australia's greenhouse gas emissions, without evidence that this is in fact true. In our experience, this lowers the community's confidence in Government decision making, particularly for communities who will bear the burden of the impacts of these Projects.

Impacts to water resources

Our client raised concerns about water quantity and quality issues including in relation to the contamination of water resources from the tailings dam. Our client engaged independent scientific experts with expertise in water quality and surface water and groundwater hydrology.⁶⁹

Water quality concerns

Key issues raised by scientific experts at the public hearing in relation to water quality included the following:

- Climate change, including drought frequency and heavy rainfall intensity, was not considered in the modelling.⁷⁰
- There is a high risk of contamination of groundwater, springs and sinks, streams and rivers that are receiving groundwater discharge from the proposed tailings dam.⁷¹
- The uncertainty analysis of the pollution from the tailings dam has not been undertaken to determine the extent of the impacts.⁷²

⁶⁸ NSW Department of Planning and Environment, McPhillamys Gold Project Assessment Report (Report, November 2022) [21] <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/referral-from-dpe/mcphillamys-gold-project--assessment-report.pdf>.

⁶⁹ Gavin Mudd, Independent Expert Report (Report, 15 February 2023) <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/prof-gavin-mudd-submission--170223redacted.pdf>; Ian Wright, Independent Expert Report <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/dr-ian-wright-submission--170223.pdf>; Ryan Vogwill, Independent Expert Report (Report, 10 February 2023) <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/dr-ryan-vogwill--submission--170223redacted.pdf>

⁷⁰ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, pp, 15, 43 <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/transcripts-and-material/2022/mcphillamys/230208--mcphillamys-gold-project--public-hearing-day-3-transcript.pdf>

⁷¹ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 43 <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/transcripts-and-material/2022/mcphillamys/230208--mcphillamys-gold-project--public-hearing-day-3-transcript.pdf>.

⁷² IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 43-46 <https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/transcripts-and-material/2022/mcphillamys/230208--mcphillamys-gold-project--public-hearing-day-3-transcript.pdf>.

- Risks of the mine pit becoming a polluting flow through system in the long term have not been considered.⁷³
- Risks associated with leakage, malfunction or breakage of the 90km pipeline, as well as information about the level of pollutants in the wastewater that will be transferred by the pipeline, have not been adequately addressed/considered.⁷⁴ Particularly, in the context of the length of the pipeline and the high volume and velocity of the water to be pumped through it.

Water quantity concerns

The proposed pipeline will provide the necessary water for processing of the ore. However, given the design of the mine, in particular the TSF and the mine pit, the Project will require water access licences to account for its ongoing incidental water take.

In February 2021 the Department had advised the proponent that there is not enough surface water entitlement in the catchment to account for the Project's incidental water take.⁷⁵ The proponent purchased most of the available water entitlement. However, there was a significant shortfall, namely 2,083 megalitres per year, whereas under the relevant water sharing plan only 264 megalitres of entitlement was available in total.⁷⁶ This resulted in significant delays for the Project.

Outcome

In April 2022, the problem was solved when the Government amended water regulations to include provision for a 'Special Purpose Access Licence'⁷⁷ (**SPAL**) specifically for McPhillamys.⁷⁸ The amendment allows McPhillamys to apply to the NSW Water Minister for a licence to account for the shortfall in its surface water entitlement, despite the limit set out in the relevant water sharing plan. The volume of water that McPhillamys can apply for is not pre-determined. The only apparent parameters with respect to the take of surface water under this SPAL is that the water is used for the purpose of the McPhillamys Gold mine and that, in the Minister's opinion, the take of water will not cause more than minimal harm to the environment. The "minimal harm test" is poorly understood. There is no Government policy or judicial guidance as to what it means.

⁷³ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 46-47

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/transcripts-and-material/2022/mcphillamys/230208--mcphillamys-gold-project--public-hearing-day-3-transcript.pdf>.

⁷⁴ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 20-21

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/transcripts-and-material/2022/mcphillamys/230208--mcphillamys-gold-project--public-hearing-day-3-transcript.pdf>.

⁷⁵ Letter to Regis Resources Limited, Response to Submissions, Amendment Report and Additional Information, Attachment A p, 1 <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PAE-9196073%2120210210T082338.765%20GMT>.

⁷⁶ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [228]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--statement-of-reasons-for-decision.pdf>.

⁷⁷ Letter from the Department to the proponent regarding the process for applying for a Special Purpose Licence, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9505%2120221014T021910.409%20GMT>.

⁷⁸ *Water Management (General) Regulation 2018* (NSW), s 10(p). See, <https://legislation.nsw.gov.au/view/pdf/asmade/sl-2022-126>

EDO is not aware of any precedent for a mining company obtaining a SPAL. Upon review of current provisions enabling the grant of different types of SPALs, excluding the provision for the grant of the SPAL for the Project, it is notable that most are temporary measures for critical water needs.

EDO recognises that the practice of amending environmental laws to remove barriers for Major Projects in NSW is not unique to McPhillamys. Our client is deeply troubled that where a mining development did not fit within the constraints of environmental laws, the Government addressed this by amending the law. EDO considers that the practice, of amending environmental laws so that mining developments can go ahead, erodes community perceptions of integrity and fairness and is contrary to good governance.

Further, and while the community was afforded the opportunity to participate in the assessment of the McPhillamys Environmental Impact Statement through the IPC public hearing process, there are no opportunities for public participation with respect to the assessment of the environmental impacts of any SPAL that is applied for by McPhillamys. This lack of public transparency and oversight, with respect to the SPAL, is a significant regulatory gap.

The IPC ultimately determined that the impacts to water quality and quantity are capable of being minimised, managed or compensated where necessary. Specifically, that the tailings treatment measures and dam design are sufficient to minimise and mitigate contamination and seepage risks.⁷⁹ With respect to the water supply pipeline, the IPC determined that the impacts associated with the construction of the pipeline are capable of being managed. The IPC did not address the ongoing operational risks of the pipeline.⁸⁰ As to surface water take, the IPC was of the view that the approach to address the water licence shortfall was appropriate.⁸¹

Social impacts

At the public hearing, the IPC heard expert evidence about the significant adverse social impacts that would arise from the Project. The principal adverse social impacts affecting the neighbouring land holders were said to arise from noise, dust, and loss of visual amenity, social cohesion, social connection, and sense of place.⁸²

The IPC heard that there will be unavoidable social impacts that could not be fully alleviated or mitigated – for example, out migration and social fragmentation. The problem being that the location of the mine is so close to the Kings Plains village that the residents could not realistically be sheltered from the noise, dust, and vibration that will occur during construction and operation of the mine, and that these would make the village unliveable.⁸³

⁷⁹ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [204].

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project-statement-of-reasons-for-decision.pdf>

⁸⁰ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [189].

⁸¹ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [241].

⁸² Ziller, Review of Social Impacts Assessment (Report, 17 February 2023), p 9

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/dr-alison-ziller-submission--170223.pdf>.

⁸³ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 11.

The main mitigation measure proposed by the mining company was the availability of negotiated agreements for 18 affected landholders who would be able to sell their properties to the mining company. The IPC heard that while the negotiated agreements would be offered to 18 land holders there are 85 residences within 2 kilometres of the mine site. As such, 67 land holders or 79% of those within two kilometres of the mine site, would not be offered this proposed mitigation.⁸⁴

Another proposed mitigation measure was the installation of air conditioning and double-glazing windows, but it was not clear which land holders would benefit from these measures. The IPC heard that such mitigation measures would require households to reside in enclosed environments for the duration of the construction and extraction operations, in order for this mitigation measure to be effective.⁸⁵ Residents would not be able to open their windows, especially in the early morning or in the evening or at night, as mining operation would occur 24/7 365 days per year.⁸⁶ The IPC heard that the health and welfare costs to residents of these living arrangements were not identified by the mining company.⁸⁷

The IPC ultimately found that the project would provide “significant” value and social benefits. It pointed to economic benefits to the region, employment opportunities for individuals and opportunities for local businesses in the area and the wider region.⁸⁸

In its statement of reasons, the IPC said that the proposed mitigation measures were comprehensive and consistent with industry best practise and would reduce the social impact as far as practicable.⁸⁹ Further, that the social impacts associated with the project including those relating to way of life intergenerational equity property values stress on local housing and supply and stress on local services are capable of being minimised and mitigated through conditions.⁹⁰

The IPC imposed conditions⁹¹ requiring the proponent to prepare a ‘social impact management plan’ including the preparation of a ‘stakeholder engagement framework’ and a ‘monitoring and reporting program’. It also imposed conditions requiring the proponent to make environmental impacts for example noise blasting and air quality publicly available on the mining company’s website.

⁸⁴ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 11.

⁸⁵ IPC, McPhillamys Gold Project Public Hearing Transcript day 3, p 11.

⁸⁶ NSW Department of Planning and Environment, McPhillamys Gold Project Assessment Report (Report, November 2022) pp 22-23

⁸⁷ Alison Ziller, Independent Expert Report, (13 February 2023)

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/dr-alison-ziller-submission--170223.pdf> p 11.

⁸⁸ Alison Ziller, Independent Expert Report, (13 February 2023), [67]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/dr-alison-ziller-submission--170223.pdf>.

⁸⁹ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023), [179]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--statement-of-reasons-for-decision.pdf>.

⁹⁰ Ibid, [181].

⁹¹ IPC, McPhillamys Gold Project Development Consent (30 May 2023) p 30

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--development-consent.pdf>.

Our client considers that these conditions are wholly inadequate. While it is common practice for Governments to require proponents to prepare “management plans” to deal with uncertainty or unavoidable impacts, this merely “kicks the can down the road” for determination at a later date by a different party at a different time.⁹²

Impact on Aboriginal cultural heritage

EDO also acts for an Aboriginal Elder of the Wiradjuri Nation who has submitted an application under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth), to protect cultural objects and areas on the mine site. That application is yet to be determined.

The IPC heard from two independent expert archaeologists about deficiencies in the proponent’s analysis of the Aboriginal cultural heritage potentially subject to impacts, including the subsurface heritage resource. In particular, a lack of survey coverage and subsequent lack of analysis of the results of the survey.⁹³ There was a complete absence of investigation and assessment of the subsurface Aboriginal cultural heritage resource.⁹⁴ There was no support for the statement by the proponent⁹⁵ that all artifacts and sites identified by the proponent, 30 of which would likely be disturbed, have “low scientific significance”.⁹⁶

The IPC heard that ultimately, there was insufficient available information about the ‘Aboriginal heritage resource’, including an answer to the ‘most basic question of “what” is present’, for a conclusion to be reached as to whether the impacts are acceptable, according to NSW government policy.⁹⁷

The IPC nonetheless found that harm to Aboriginal Cultural Heritage can be minimised and can be acceptably managed by conditions of consent.⁹⁸ Specifically, the conditions require the proponent

⁹² Counsel briefed on behalf of BHPG, Legal Submissions (15 February 2023) [51]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office/counsels-written-submissions.pdf>.

⁹³ Peter Kuskie, Independent Expert Report (11 February 2023) [18]

https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office-submissions-nyree-reynolds/mcphillamys-review-sea-kuskie-11feb2023_redacted.pdf.

⁹⁴ Peter Kuskie, Independent Expert Report (11 February 2023) [19].

⁹⁵ Regis Resources Limited, Environmental Impact Assessment Appendix P – Mine development Aboriginal historical cultural heritage assessment (July 9019) p 134

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9505%2120190830T001731.852%20GMT>.

⁹⁶ Peter Kuskie, Independent Expert Report (11 February 2023) [45]

https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office-submissions-nyree-reynolds/mcphillamys-review-sea-kuskie-11feb2023_redacted.pdf.

⁹⁷ Peter Kuskie, Independent Expert Report (11 February 2023) [43]

https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/email-and-postal-public-submissions/environmental-defenders-office-submissions-nyree-reynolds/mcphillamys-review-sea-kuskie-11feb2023_redacted.pdf.

⁹⁸ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [372]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--statement-of-reasons-for-decision.pdf>.

to record any known Aboriginal objects or places, cease works and notify police if suspected human remains are discovered on site and to ensure that the development does not cause any direct or indirect impact on any identified heritage items.⁹⁹ The IPC relied on the proponents unsubstantiated assertions as to the “low scientific significance” of the identified artifacts and sites, in its determination.¹⁰⁰

⁹⁹ IPC, McPhillamys Gold Project Development Consent (30 March 2023) p 22

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--development-consent.pdf>.

¹⁰⁰ IPC, McPhillamys Gold Project Statement of Reasons (30 March 2023) [257]

<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2022/11/mcphillamys-gold-project/determination/230330--mcphillamys-gold-project--statement-of-reasons-for-decision.pdf>.