



Public Health Association
AUSTRALIA

Public Health Association of Australia submission on rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

Contact for recipient:

Committee Secretary
Senate Standing Committee on
Environment and Communications
**PO Box 6100, Parliament House,
Canberra ACT 2600**
E: ec.sen@aph.gov.au T: (02) 6277 3585

Contact for PHAA:

Michael Moore – Chief Executive Officer
A: 20 Napier Close, Deakin ACT 2600
E: phaa@phaa.net.au T: (02) 6285 2373

10 April 2017

*PHAA submission on rehabilitation of mining and resources projects as it relates to
Commonwealth responsibilities*

Contents

Introduction	3
The Public Health Association of Australia.....	3
Vision for a healthy population.....	3
Mission for the Public Health Association of Australia.....	3
Preamble	4
PHAA Response to the Inquiry Terms of Reference	4
d. the effectiveness of current Australian rehabilitation practices in safeguarding human health and avoiding environmental damage.....	4
e. the effectiveness of existing abandoned mines programs, with regard to repairing environmental damage and safeguarding human health.....	4
g. the potential social, economic and environmental impacts including on matters of national environmental significance under the EPBC Act, of inadequate rehabilitation.....	4
h. the potential social, economic and environmental benefits of adequate rehabilitation, including job opportunities in communities affected by job losses in the mining and resources sectors.....	5
j. proposals for reform of rehabilitation of mining and resources projects.....	5
Conclusion	6
References	7

*PHAA submission on rehabilitation of mining and resources projects as it relates to
Commonwealth responsibilities*

Introduction

The Public Health Association of Australia

The Public Health Association of Australia (PHAA) is recognised as the principal non-government organisation for public health in Australia working to promote the health and well-being of all Australians. It is the pre-eminent voice for the public's health in Australia. The PHAA works to ensure that the public's health is improved through sustained and determined efforts of the Board, the National Office, the State and Territory Branches, the Special Interest Groups and members.

The efforts of the PHAA are enhanced by our vision for a healthy Australia and by engaging with like-minded stakeholders in order to build coalitions of interest that influence public opinion, the media, political parties and governments.

Health is a human right, a vital resource for everyday life, and key factor in sustainability. Health equity and inequity do not exist in isolation from the conditions that underpin people's health. The health status of all people is impacted by the social, cultural, political, environmental and economic determinants of health. Specific focus on these determinants is necessary to reduce the unfair and unjust effects of conditions of living that cause poor health and disease. These determinants underpin the strategic direction of the Association.

All members of the Association are committed to better health outcomes based on these principles.

Vision for a healthy population

A healthy region, a healthy nation, healthy people: living in an equitable society underpinned by a well-functioning ecosystem and a healthy environment, improving and promoting health for all.

Mission for the Public Health Association of Australia

As the leading national peak body for public health representation and advocacy, to drive better health outcomes through increased knowledge, better access and equity, evidence informed policy and effective population-based practice in public health.

PHAA submission on rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

Preamble

PHAA welcomes the opportunity to provide input to the Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities. The reduction of social and health inequities should be an over-arching goal of national policy and recognised as a key measure of our progress as a society. The Australian Government, in collaboration with the States/Territories, should outline a comprehensive national cross-government framework on reducing health inequities. All public health activities and related government policy should be directed towards reducing social and health inequity nationally and, where possible, internationally.

PHAA Response to the Inquiry Terms of Reference

d. the effectiveness of current Australian rehabilitation practices in safeguarding human health and avoiding environmental damage

e. the effectiveness of existing abandoned mines programs, with regard to repairing environmental damage and safeguarding human health

The effective rehabilitation of mining and resources projects is essential to protecting the health of the Australian population. The PHAA believes the regulatory framework in Australia should be based on a precautionary principle approach rather than a 'proceed until danger is proven' approach. To enact this, adequate funding for the Environmental Protection and Biodiversity Conservation (EPBC) Act is required, to ensure compliance staff are able to monitor adherence to approval conditions and conduct regular assessments. The PHAA is concerned that funding levels are not always adequate for this. Similarly, as acknowledged by the Australian Minerals Institute, state rehabilitation bonds are often insufficient for the actual costs of rehabilitation¹.

A recent report highlighted that there is little data available on the rehabilitation of mining sites, with few positive examples out of the more than 60,000 sites across Australia². This strongly suggests the need for increased transparency around these processes.

g. the potential social, economic and environmental impacts including on matters of national environmental significance under the EPBC Act, of inadequate rehabilitation

Inadequate rehabilitation has multiple social, environmental and health impacts which need to be minimised or avoided. Reclamation involves restoring a site to a condition similar to before the mining or resource project began. This requires ensuring that there are no pollutants to contaminate land and waterways, that the land is safe and stable for animals and humans, and that the rehabilitated land is sustainable. Discharges of heavy metals and acids from mining sites have potential consequences including pollution of water sources affecting residential usage, fish populations and wildlife habitats and soil contamination, with the lack of vegetation on mining sites leading to increased soil erosion. Waste rock,

PHAA submission on rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

blown dust and tailings contribute to air pollution. There is no established blood lead threshold below which adverse health effects do not occur, and in towns with a long history of mining and smelting, lead is found in dust in footpaths, housing, yards and children's play areas.

Exposure to some chemicals has been linked to a range of health conditions including asthma^{3 4 5}, allergies⁶, autoimmune diseases, cancers^{7 8}, neurological impairment⁹, birth defects and infertility¹⁰. Some chemical contaminants may be passed on to the next generation both prenatally and during pregnancy and breastfeeding^{11 12 13 14}. These adverse health effects may also be linked with health inequities, with people of low socioeconomic status being more likely to be employed in occupations with higher levels of chemical exposure such as mining and to live in more contaminated communities.

There are additional risks for Aboriginal and Torres Strait Islander communities where traditional diets are formed around bush foods, which are susceptible to contamination from inadequately rehabilitated mining sites¹⁵. Aboriginal and Torres Strait Islander people are already the most disadvantaged Australians, and many are dependent upon and enjoy bush foods and bush medicine.

h. the potential social, economic and environmental benefits of adequate rehabilitation, including job opportunities in communities affected by job losses in the mining and resources sectors

The PHAA is not opposed to mining (except coal and underground coal gasification) but strongly supports practices of good rehabilitation of mining and resource projects, and the environmental protection arising from these practices. Strong regulations for rehabilitation should include both human and ecosystem health. Human health, and risks to health, are related to both direct exposure to mine waste, and from a well-functioning ecosystem. For example, remediation of land contaminated with lead, if adequately funded and supported, may be effective in lowering dangerous blood lead levels. In communities such as these, preventive strategies at the community/population level are the most effective way to reduce lead exposure. Ideally, rehabilitation goes further than simply avoiding poor health outcomes, and contributes to community wellbeing such as by providing public green space or other community-determined uses.

Mine site rehabilitation provides an opportunity for cultural maintenance and strengthening for Aboriginal and Torres Strait Islander people. This may be important for people's identity, self-esteem and health and well-being, in addition to protection from specific risks associated with bush foods and medicines.

j. proposals for reform of rehabilitation of mining and resources projects

The funding and independence of monitoring systems are essential for successful rehabilitation of mining and resources projects. Approval conditions should explicitly include that developers fund independent and ongoing monitoring of how well the developers are meeting their approval conditions. This requires the involvement of an independent third party such as the relevant State Environmental Protection Agency or the Commonwealth Department of the Environment and Energy, possibly to conduct a tender for the ongoing monitoring process. This would help ensure that assessors do not have any conflict of interest in

PHAA submission on rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

terms of future work if they provide an adverse report. Alternatively, the Commonwealth could better fund compliance officers to check the compliance with approval conditions. The approval conditions should include the cost of the monitoring system during the life of the mine and its associated rehabilitation, with the power to increase the funding provided if the cost of monitoring compliance exceeds estimates.

Engagement with the local Aboriginal and Torres Strait Islander people of the region should be part of the planning and monitoring of rehabilitation, including Aboriginal and Torres Strait Islander people from the region who are living elsewhere. Local Aboriginal and Torres Strait Islander people can provide information on cultural and spiritual values of the region of the mine, in addition to information on which bush foods are important and how they are eaten, and how bush medicines are used, because of the risk of contamination from the mining process. Both cultural and food and medicinal values should be considered from the perspective of the local Aboriginal and Torres Strait Islander people. Such engagement should occur in the rehabilitation process for every mine, regardless of whether Native Title has been claimed or established over the area of the mine.

Conclusion

PHAA supports the broad directions of the Inquiry in ensuring adequate rehabilitation of mining and resources projects. However, we are keen to ensure adequately funded, independent monitoring in line with this submission. We are particularly keen that the following points are highlighted:

- Mining companies should be responsible for paying the cost of the rehabilitation of their project;
- Monitoring must be independent to eliminate conflicts of interest; and
- Funding must be adequate, and with provision for meeting increased costs should the need arise.

The PHAA appreciates the opportunity to make this submission and the comment on the rehabilitation of mining and resources projects.

Please do not hesitate to contact me should you require additional information or have any queries in relation to this submission.

Michael Moore BA, Dip Ed, MPH
Chief Executive Officer
Public Health Association of Australia

Peter Tait
PHAA Convenor
Ecology and Environment Special Interest Group

10 April 2017

*PHAA submission on rehabilitation of mining and resources projects as it relates to
Commonwealth responsibilities*

References

- ¹ Davis C (2015) Environmental rehabilitation and mine closure. The AusIMM Bulletin, Feb 2015.
<https://www.ausimmbulletin.com/feature/environmental-rehabilitation-and-mine-closure/> (accessed 4 April 2017)
- ² Campbell R, Linqvist J, Browne B, Swann T & Grudnoff M (2017) The dark side of the boom (NSW): What we do and don't know about mines, closures and rehabilitation in New South Wales. The Australia Institute, Canberra.
- ³ Al-Yaman, F. Bryant, M. & Sargeant, H. (2002) *Australia's Children: Their Health and Wellbeing*, Australian Institute of Health and Welfare (AIHW), Canberra
- ⁴ Woolcock, A. Bastiampillai, S. Marks, G. & Keena, V. (2001) The burden of asthma in Australia, *Medical Journal of Australia*, 175 (3):141-5.
- ⁵ Mendell, M. J (2006) Indoor Residential Chemical Exposures as Risk Factors for Asthma and Allergy in Infants and Children: a Review, Environmental Energy Technologies Division Indoor Environment Department Lawrence Berkeley National Laboratory See <http://eetd.lbl.gov/ie/pdf/LBNL-59781.pdf> (Accessed May 23, 2011)
- ⁶ Kwak, E, Just, A, Whyatt, R, & Miller, R (2009) Phthalates, Pesticides, and Bisphenol-A Exposure and the Development of Nonoccupational Asthma and Allergies: How Valid Are the Links? *Open Allergy J.*, Vol 2: 45–50
- ⁷ Freedman, D. Stewart, P. Ruth, A. Kleinerman, M. Wacholder, S. Hatch, E. Tarone. R. Robison, L. & Linet, M. (2001) Household Solvent Exposures and Childhood Acute Lymphoblastic Leukemia, *American Journal of Public Health*, 91(4):564-567.
- ⁸ Labreche F, Goldberg, M. Marie-France Valois & Louise Nadon (2010) Postmenopausal breast cancer and occupational exposures, *Occup Environ Med*, 67:263-69
- ⁹ Grandjean P & Landrigan P (2006) Developmental neurotoxicity of industrial chemicals. *The Lancet*, 368 (9553):2167-2178
- ¹⁰ Janssen S, Solomon G & Schettler T. Chemical contaminants and human disease: A summary of the evidence. www.protectingourhealth.org/corethemes/links/20040203spreadsheet.htm (Accessed 23 May 2011)
- ¹¹ Landrigan P & Goldman L (2011) Children's vulnerability to toxic chemicals: A challenge and opportunity to strengthen health and environmental policy. *Health Affairs*, 30 (5): 842-850
- ¹² Nassar, N, Abeywardana, P, Barker, A, & Bower, C (2009) Parental occupational exposure to potential endocrine disrupting chemicals and risk of hypospadias in infants, *Occup Environ Med*, 67:585-589
- ¹³ Toms, LM, Harden FA, Symons RK, Burniston D, Fürst P, Müller JF (2007) Polybrominated diphenyl ethers (PBDEs) in human milk from Australia, *Chemosphere*, 68(5):797-803
- ¹⁴ Woodruff, TJ, Zota, AR, Schwartz, JM (2011) Environmental Chemicals in Pregnant Women in the US: NHANES 2003-2004, *Environ Health Perspective*, doi:10.1289/ehp.1002727. Epub 2011 Jan 14
- ¹⁵ Doering C, Bollhöfer A & Medley P (2017) Estimating doses from Aboriginal bush foods post-remediation of a uranium mine. *Journal of Environmental Radioactivity*, 172: 74-80