



Public Health Association
AUSTRALIA

Public Health Association of Australia submission on the Draft Environmental Impact Statement on the Nolans Project

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Introduction

The Public Health Association of Australia

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes based on prevention, the social determinants of health and equity principles. PHAA is a national organisation comprising around 1900 individual members and representing over 40 professional groups.

The PHAA has Branches in every State and Territory and a wide range of Special Interest Groups. The Branches work with the National Office in providing policy advice, in organising seminars and public events and in mentoring public health professionals. This work is based on the agreed policies of the PHAA. Our Special Interest Groups provide specific expertise, peer review and professionalism in assisting the National Organisation to respond to issues and challenges as well as a close involvement in the development of policies. In addition to these groups the Australian and New Zealand Journal of Public Health (ANZJPH) draws on individuals from within PHAA who provide editorial advice, and review and edit the Journal.

In recent years PHAA has further developed its role in advocacy to achieve the best possible health outcomes for the community, both through working with all levels of Government and agencies, and promoting key policies and advocacy goals through the media, public events and other means.

Vision for a healthy population

The PHAA has a vision for a healthy region, a healthy nation, healthy people: living in an equitable society underpinned by a well-functioning ecosystem and 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.

Priorities for 2016 and beyond

Key roles of the organisation include capacity building, advocacy and the development of policy. Core to our work is an evidence base drawn from a wide range of members working in public health practice, research, administration and related fields who volunteer their time to inform policy, support advocacy and assist in capacity building within the sector. The aims of the PHAA include a commitment to:

- Advancing a caring, generous and equitable Australian society with particular respect for Aboriginal and Torres Strait Islanders as the first peoples of the nation;
- Promote and strengthen public health research, knowledge, training and practice;
- Promote a healthy and ecologically sustaining human society across Australia, including tackling global warming, environmental change and a sustainable population;
- Promote universally accessible people centered and health promoting primary health care and hospital services that are complemented by health and community workforce training and development;
- Promote universal health literacy as part of comprehensive health care;
- Support health promoting settings, including the home, as the norm;
- Assist other countries in our region to protect the health of their populations, and to advocate for trade policies that enable them to do so;
- Promote the PHAA as a vibrant living model of its vision and aims.

Preamble

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes. PHAA has a vision for a healthy region, a healthy nation and healthy people living in a healthy society and a sustaining environment based on prevention, the social determinants of health and equity principles.

Health Equity

As outlined in the Public Health Association of Australia's objectives:

Health is a human right, a vital resource for everyday life, and a key factor in sustainability. Health equity and inequity do not exist in isolation from the conditions of society that underpin people's health. The health status of all people is impacted by the social, political, and 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.

The PHAA notes that:

- Health inequity differs from health inequality. A health inequality arises when two or more groups are compared on some aspect of health and found to differ. Whether this inequality (disparity) is inequitable, however, requires a judgement (based on a concept of social justice) that the inequality is unfair and/or unjust and/or avoidable. Inequity is a political concept while inequality refers to measurable differences between (or among, or within) groups.
- Health inequity occurs as a result of unfair, unjust social treatment – by governments, organisations and people, resulting in macro politico-economic structures and policies that create living and working conditions that are harmful to health, distribute essential health and other public services unequally and unfairly, preventing some communities and people from participating fully in the cultural, social or community life of society.

Social Determinants of Health

The social determinants of health are the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities – the unfair and avoidable differences in health status seen within and between countries.

The determinants of health inequities are largely outside the health system and relate to the inequitable distribution of social, economic and cultural resources and opportunities. Health inequities are the result of the interaction of a range of factors including: macro politico-economic structures and policy; living and working conditions; cultural, social and community influences; and individual lifestyle factors.

PHAA Response to the Nolans Project draft Environmental Impact Statement

PHAA is a peak non-government organisation with a sustained record of advocacy relating to mining and radioactivity, and their impacts on public and environmental health. The PHAA commented on the draft Terms of Reference for the Nolan's Project and welcomes the opportunity to provide further comment on the draft Environmental Impact Statement.

PHAA considers the matter of rare earths mines in Australia to be of particular public and environmental health significance given the radioactivity present in the ores and both the short and long term impacts that can ensue. We note that the presence of radioactivity in the Nolan's Project deposit is sufficient to have triggered a requirement for an Environmental Impact Assessment process under the EPBC Act as a nuclear action.

The Nolan's Project is now proposing to mine a larger area than the original Nolan's Bore Mine proposal was in 2008, and to mine over a longer time period. There will be some significant environmental impacts resulting from this mine. Significant economic investment will be required to bring the mine to production phase.

PHAA recognises that rare earths are being utilised in many ways across numerous industries, some of which have clear environmental and social benefits. We are concerned however about the risks associated with rare earths mining, particularly in relation to the radioactive minerals coexisting with the rare earths in the ore bodies, and consider it important that these risks be minimised where possible.

A key step to risk minimisation is to produce only as much rare earths as is truly required on a global scale. PHAA understands that there has been somewhat of a global oversupply of rare earths in recent years compared to demand and that the Nolan's Bore Mine proposal previously failed to gain commercial funding despite several attempts. We also note that there is considerable room for improvement in the reducing, reusing and recycling of end products containing rare earths. The PHAA recommends that a feasibility study be conducted regarding global rare earths supply and demand before consideration of the Nolan's Project be further advanced.

It is of concern that the Nolan's Project Separation Plant is to be subject to a separate approvals process and is excluded from the scope of the amendment to the Mining Management Plan. The PHAA notes that the Separation Plant for Australia's only currently existing Rare Earths project at Mt Weld in Western Australia is in Malaysia and that this plant has been plagued by claims of substandard practice. There has allegedly been gross environmental contamination and significant public health impacts for local people in the surrounding region of the Separation Plant in Malaysia resulting in large scale community opposition. The PHAA suggests that Malaysian Separation Plant does not meet Australian environmental and public health standards and would not be acceptable if operated in Australian territory. The PHAA recommends

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that the Nolan's Project be required to undergo a simultaneous assessment of the extraction process and the Separation Plant and that the former not receive approval until the latter has been shown to meet strict environmental and public health standards such as would be expected in Australia.

It is noted that the Nolan's Project will no longer be drawing water from the Ti Tree Basin. The project will however be using more water than the earlier Nolan's Bore Mine proposal and that this water is a significant amount. This may impact on future availability of groundwater for other purposes. The proposed diversion of two rivers in the project area could potentially have a significant impact on the health of the water catchment. The PHAA recommends that as little water as possible be used in the operation of the Nolan's Bore Rare Earth project. Proposed river diversions should undergo a comprehensive impact assessment. All planned water use for the project should be considered in the broader context of a Territory wide water allocation plan. Extrapolating from previous comments in this submission, the PHAA further recommends that there be consideration of downsizing the project according to the real global demand for rare earths.

The current proposal will result in significant amounts of radioactive ore requiring processing and radioactive waste requiring storage. The PHAA recommends that workers operate according to world's best practice safety standards regarding radiation exposure and that radioactive waste be managed according to world's best practice.

The PHAA note that there are nearby communities to the proposed Nolan's Project being Aleyun (Aileron), 15km away and Laramba, 50km to the West. In 15.4.4 of the draft EIS it is noted that the "project has the potential to create additional substance abuse and mental health issues associated with the high wages and living away from home conditions prevalent in the resources industry. Additional health issues associated with the project include real or perceived potential impacts such as dispersion or storage of radioactive materials, transport of dangerous goods, dispersion of dust, tailings dam failure, waste storage, contamination of water and spills."

These potential health impacts are reminiscent of those faced by the communities surrounding the uranium mines in the Alligator Rivers region of the Top End of the Northern Territory when consideration of the Ranger and Nabarlek uranium mines was taking place in the late 1970s. The Fox Inquiry at that time granted approval for the mines to proceed on the condition that there be rigorous baseline and then ongoing health monitoring of the surrounding populations. Such health monitoring took place for approximately 5 years but then ceased for many years. In 2006 a group of researchers led by Professor Colin Tatz analysed the NT Cancer Registry data and found an apparent significant increase in cancer incidence in the Alligator Rivers population compared to surrounding NT areas. A subsequent study by the NT Health Department released in 2014 found an apparent 48% increase in cancer incidence and a doubling of stillbirth incidence. This concerning finding is now being further evaluated and substantiated. There appear to be no plans to monitor the health of the communities closest to the proposed Nolan's Project.

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The PHAA recommend that health monitoring take place both at baseline and on an ongoing basis for the duration of the Nolan's Project's operation. This should be an integral part of the Mitigation and Monitoring strategy as outlined in 15.5.

The PHAA note the plan for above ground storage of waste ore and that this poses a risk of airborne distribution of radioactive dust and radon gas. There is potential for such radionuclides to reach nearby communities. The PHAA recommend that such airborne spread be minimised via all available and reasonable measures and that monitoring of airborne radionuclides take place at strategic locations including potentially affected communities, as has taken place at the Ranger uranium mine.

The PHAA are opposed to radioactive mining and the nuclear industry and are therefore concerned to read that "Arafura does not initially intend to commercially recover" the uranium and thorium present in the ore. The PHAA recommend that there be a firm commitment both from the government and the proponent that no consideration ever be given to recovering these elements.

Given historical problems in obtaining finance and a fluctuating international market for rare earths product the possibility of the Nolan's Bore Rare Earth project stalling prior to its anticipated completion and final rehabilitation needs to be considered. A securely funded mitigation plan needs to be in place in the event of an early closure. The PHAA therefore recommends that the project needs to demonstrate its necessity and long term viability prior to approval being granted. Further, should approval be given then a site rehabilitation fund of sufficient magnitude should be required as a condition of approval.

Summary of recommendations

Recommendation 1: that a feasibility study be conducted regarding global rare earths supply and demand before consideration of the Nolan's Project be further advanced

Recommendation 2: that the Nolan's Project be required to undergo a simultaneous assessment of the extraction process and the Separation Plant and that the former not receive approval until the latter has been shown to meet strict environmental and public health standards such as would be expected in Australia.

Recommendation 3: that as little water as possible be used in the operation of the Nolan's Bore Rare Earth project. Proposed river diversions should undergo a comprehensive impact assessment.

Recommendation 4: that there be consideration of downsizing the project according to the real global demand for rare earths.

Recommendation 5: that workers operate according to world's best practice safety standards regarding radiation exposure and that radioactive waste be managed according to world's best practice.

Recommendation 6: that health monitoring take place both at baseline and on an ongoing basis for the duration of the Nolan's Project's operation.

Recommendation 7: that such airborne spread be minimised via all available and reasonable measures and that monitoring of airborne radionuclides take place at strategic locations including potentially affected communities, as has taken place at the Ranger uranium mine.

Recommendation 8: that there be a firm commitment both from the government and the proponent that no consideration ever be given to recovering of uranium and thorium elements present in the ore.

Recommendation 9: that the project needs to demonstrate its necessity and long term viability prior to approval being granted.

Recommendation 10: that should approval be given then a site rehabilitation fund of sufficient magnitude should be required as a condition of approval.

Conclusion

PHAA appreciates the opportunity to comment on the draft Environmental Impact Statement and looks forward to ongoing involvement with these matters.

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



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