

Adani Infrastructure's North Galilee Water Scheme (NGWS) Project;

EPBC 2018/8191

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Healthy planet, **healthy people.**

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Proposed action

North Galilee Water Scheme (NGWS) Project; EPBC 2018/8191¹

Comment from Doctors for the Environment Australia

Introduction

Doctors for the Environment Australia (DEA) is an independent, non- government organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to minimise public health impacts and address the diseases, local, national and global, caused by damage to our natural environment.

DEA's primary role is to highlight the vital link between human health and the environment. We recognise the invaluable role that healthy ecological systems have in providing humans with clean air and water, fertile soils and their cultural and societal significance, and that human health and our future wellbeing depends on maintaining and protecting our environment. There are immediate and long-term costs to be considered if this critical link is ignored. Currently 60% of the Earth's vital ecosystems are degraded and under severe and unsustainable pressure.² As some regions of Queensland become drier, it is essential to sustainably manage our water resources to ensure future generations have sufficient potable water, irrigation for agriculture and functioning natural ecosystems.

Since 2011, DEA has made three previous submissions to Government on the Carmichael mine proposal which detail the health impacts of water usage and also the effects of runoff to the Great Barrier Reef and exacerbation of climate change which will impact on Australia.³

Recommendations

1. That the North Galilee Water Scheme (NGWS) project is a controlled action under s 67 of the amended Environment Protection and Biodiversity Conservation Act of 2013, with controlling provisions of:
 - a. Water resource in relation to Coal Seam Gas or large coal mining development
 - b. Great Barrier Reef Heritage Area
 - c. Nationally threatened species and ecological communities
2. Obtain expert advice from the Independent Expert Scientific Committee on Coal Seam Gas (CSG) and Large Mining Development (IESC) on the likely cumulative environmental impacts and impacts on water resources of this project.

3. Require a Social and Environmental Impact Statement (EIS) to assess the full impacts on Matters of National Environmental Significance and any potential impacts on human health and wellbeing.
4. Require Adani Infrastructure Pty Ltd to fully disclose the environmental compliance record of the parent company and any other affiliated companies.

Background

Impact on water

The NGWS should be a controlled action and require assessment under the water trigger (EPBC Act amendment in 2013) for the following reasons:

1. The NGWS forms an essential part of the Carmichael Coal Project (CCP), and thus clearly constitutes coal mining activity – necessitating its assessment under the EPBC water trigger.

The term “large coal mining development” is defined in section 528 as: “any coal mining activity that has, or is likely to have, a significant impact on water resources (including any impacts of associated salt production and/or salinity):

- (a) in its own right; or
- (b) when considered with other developments, whether past, present or reasonably foreseeable developments”.

Adani plans on harvesting water from the Suttor River in the order of 12.5GL per year and then transporting it to its Carmichael Coal Project (CCP). In their own words: “The construction and operation of all mining projects, large and small, require a secure and reliable water supply. The CCP requires offsite water supply infrastructure for the extraction, storage and delivery of water for the operation phase as there is insufficient onsite water available to meet the total demand.”⁴ The CCP cannot operate, i.e. extract and process coal without this water, therefore the NGWS should be considered as a part of the CCP and thus constitutes a “large coal mining development”.

2. The Suttor-Belyando Sub-catchment forms a part of the complex water systems of the Burdekin Dry Tropics which flow into and therefore potentially impacts on the wellbeing of the already vulnerable Great Barrier Reef Heritage Area.⁵ This has not been mentioned or assessed in the proposal documents submitted by Adani. Given that the Burdekin River contributes the single largest source of suspended sediment to the Great Barrier Reef, the potential impact of changed flows on the health of the Great Barrier Reef needs to be thoroughly assessed.

3. The impact of the water take from the Suttor River also needs assessment regarding the effect on downstream ecological systems and human use of this water. The Suttor River management falls under the Queensland Government Water Plan (Burdekin Basin) 2007,⁶ which sets out a framework for water use including maintaining “the natural variability of flows that support the habitats of native plants and animals and migratory birds in the watercourses, floodplains, wetlands, lakes and springs”. It also states the catchments’ importance to supporting “productivity in the receiving waters of the Great Barrier Reef and inshore reefs”, and the many human uses this greater catchment provides, including irrigated agriculture and drinking water. It is therefore important that the full impact of the water take in the NGWS is assessed, taking into account any potential downstream impact.
4. The region is home to several vulnerable and endangered species, and an important habitat for at least three species (the Ornamental Snake, the Black-Throated Finch and the Koala) has been identified within the project’s area. The presence of threatened species within the project area means that this project is likely to have potentially significant impacts on matters of national environmental significance, thus making it a controlled action and requiring a full and thorough assessment. In this instance, where data is lacking, the precautionary principle should be engaged (s391 of the EPBC Act). Of note, the only EIS conducted by Adani for the NGWS was for a Material Change of Use (MCU) council permit for Stage B (storage and pipeline) of the project. Additionally, there is the risk of cumulative impact on vulnerable ecologies from other large mining projects in the same area.
5. The NGWS could also potentially be offered for use by other mining concerns however the proponents do not clearly state how much water would be made available to other projects, how many projects it expects to supply, or if this would mean increasing their take of 12.5GL per year. This means that the NGWS forms part of much larger coal mining actions, and therefore adds further weight to the need for full assessment under the water trigger.
6. Adani Infrastructure Pty Ltd is part of a larger group of companies including Adani Mining Pty Ltd (the proponent of the CCP) and Abbot Point Bulk Coal Pty Ltd, all of which are ultimately owned by the company Adani Enterprises Limited. Given the close relationship of these companies, full disclosure of any environmental legal proceedings resulting in fines or prosecution should be taken into account. There are several confirmed breaches of environmental matters by these companies, as well as concerns with the validity of hydrological monitoring. For example, the Groundwater Dependent Ecosystem Management Plan relating to extraction of ground water for the CCP was reviewed by independent experts and has showed serious scientific flaws and data gaps.⁷
7. In their assessment of Adani’s Carmichael Coal Mine and Rail Infrastructure Project (EPBC 2010/5736), the Independent Expert Scientific Committee advised that regional cumulative impacts be thoroughly assessed and be used to influence scheduling of further development phases, of which NGWS is clearly one.⁸

Impact on human health:

Human health and the health of the environment is intricately linked. In a region already vulnerable to drought, any potential negative impact on water availability and quality may have adverse effects on the livelihoods and subsequent mental health and social and community functioning of affected people. In the absence of a full social and environmental impact assessment these impacts are difficult to predict though likely to be significant.

The Great Barrier Reef, in addition to its intrinsic value as a World Heritage Area, supports the health of communities living near it by providing food, employment, protection from coastal erosion and many other essential ecosystem services. Mental health and wellbeing is also intricately connected to access to natural ecosystems. As the health of the Great Barrier Reef is already suffering from the impacts of climate change, pollution and other threats, any potential further impact resulting from the NGWS and related mining activities needs to be thoroughly and independently investigated.

The direct health impacts of coal mining and the secondary health impacts of climate change are well documented – and it is essential that the NGWS, which forms part of the CCP and potentially other coal mining developments, is assessed taking into account the larger implications of the related projects. See related DEA factsheets for more detail on these health impacts^{9,10} and DEA’s Adani’s Carmichael Coal Mine and Health: Fact Sheet¹¹.

References

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- ¹ Referrals Gateway, Environment Assessment Branch Department of the Environment GPO Box 787 Canberra ACT 2601
By email: epbc.referrals@environment.gov.au
- ² WHO - Health and Environment Linkages Initiative. <http://www.who.int/heli/en/>.
- ³ Submissions to the Carmichael Coal Mine and Rail Project EIS and Supplementary EIS <https://www.dea.org.au/submissions-to-the-carmichael-coal-mine-and-rail-project-eis-and-supplementary-eis-healthy-planet-healthy-people-dea/>
- ⁴ North Galilee Water Scheme (NGWS) Project. In: Energy DotEa, editor.: Australian Government Department of Environment and Energy; 2018.
- ⁵ NQ Dry Tropics Burdekin Dry Tropics NRM plan <http://nrm.nqdrytropics.com.au/our-region/our-priorities/>.
- ⁶ Water Plan (Burdekin Basin) 2007. Queensland Water Act 2000. <https://www.legislation.qld.gov.au/view/pdf/2017-09-02/sl-2007-0189>
- ⁷ Currell MJ, Werner AD, McGrath C, Webb JA, Berkman M. Problems with the application of hydrogeological science to regulation of Australian mining projects: Carmichael Mine and Doongmabulla Springs. Journal of Hydrology. 2017;548:674-82. <https://doi.org/10.1016/j.jhydrol.2017.03.031>
- ⁸ Advice to decision makers on Adani’s Carmichael Coal Mine and Rail Infrastructure Project (EPBC 2010/5736). 2012.
- ⁹ DEA (2017). The Health Toll of Coal. <https://www.dea.org.au/the-health-toll-of-coal-fact-sheet/>
- ¹⁰ DEA (2016). Climate Change and Health in Australia Factsheet. <https://www.dea.org.au/climate-change-and-health-in-australia-fact-sheets/>
- ¹¹ DEA (2017). Adani’s Carmichael Coal Mine and Health: Fact Sheet <https://www.dea.org.au/adanis-carmichael-coal-mine-and-health/>