

Submission on the Proposed Actions:

**2020/8708 - Urannah Dam and
Pipelines Project**

**2020/8709 - Collinsville Irrigation
Scheme Project**

July 2020



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About Doctors for the Environment Australia

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors and students in all Australian states and territories.

DEA is focused on the complex interaction between human health and our natural environment and is therefore interested in environmental protection and restoration to promote human health and social stability. We advocate to protect health through care for our natural environment and to address the diseases caused by damage to it.

DEA's work is supported by a distinguished Advisory Committee of scientific experts whose knowledge of medical and public health issues is fully contemporary. Our members work across all specialties in community, hospital and private practices.

We are a rapidly growing organisation with over 1600 members.

Executive Summary

DEA recommends that the following proposed actions should be assessed under the EPBC Act and a decision made of what the controlling provisions should be.

- 2020/8708 - Urannah Dam and Pipelines Project
- 2020/8709 - Collinsville Irrigation Scheme Project

DEA believes that the proposed actions should be assessed under the EPBC Act as the actions are likely to have a **significant impact(s)** on the following matters of national environmental significance:

- **World Heritage Properties and**
- **National Heritage Places**

DEA has identified the following significant impacts to our environment to support its recommendation that the proposed actions be assessed under the EPBC Act.

Impacts of Proposed Actions

The dam, pipeline and irrigation scheme are likely to impact on the Great Barrier Reef, which is both a World Heritage Area and a National Heritage Place, by increasing the load of nutrients, sediment and pesticide and decreasing other water quality values in the Burdekin River catchment, which discharges to the Great Barrier Reef lagoon.

In 2017 UNESCO World Heritage Committee identified nine factors affecting the Great Barrier Reef World Heritage Property. Of those, these proposals will affect six. They can be summarised as:

- Ground and surface water pollution causing changes to oceanic waters

- Increasing the extent of non-renewable energy facilities which are a source of temperature change and other climate change impacts

Water Quality

The proponent says that the proposed action will have a significant impact on the values of the Great Barrier Reef World Heritage Area and those impacts should be addressed through an Environmental Impact Statement. Conditions imposed by the Commonwealth on approval of the Rookwood Weir set a precedent for a proper assessment through an EIS. Those conditions aim to protect the Great Barrier Reef World Heritage Area from declining water quality. We do not agree with the proponent's assessment that the impacts of the proposed action would be insignificant. This should be assessed as part of an EIS.

Climate Impacts

One of the purposes of the dam and pipeline project is to provide water to existing and proposed mines in the Bowen and Galilee Basins and to provide water to the Abbot Point State Development Area. That water will facilitate coal mining and thereby increase the concentration of carbon-dioxide in the atmosphere. Greenhouse gas pollution is the most threatening process affecting the Great Barrier Reef. The role that this dam and pipeline project could play in increasing coal mining activity has not been considered by the proponent. On this ground the referral should be rejected.

Human Health Impacts

Human health and wellbeing are fundamentally dependent on the health of the natural world. Healthy, biodiverse ecosystems provide us with clean air and water, food and fibre; regulate our climate, pests and diseases; and are the source of most of the medicines we rely on. They also provide places for recreation, psychological rejuvenation and spiritual connection. Connecting with nature leads to happier, healthier communities.

Conversely, as biodiversity and ecosystems decline or are lost, the benefits that nature provides to humans are compromised and human health and wellbeing suffer. Our scarce water resources are in decline, threatening the survival of numerous rural and regional communities, our agricultural productivity and our food security. Some of our marine habitats, including the Great Barrier Reef, face collapse.

The impact this dam and pipeline project will have on the proposed water supply, in conjunction with the impact this project will have on furthering fossil fuel activities in the region – thereby exacerbating already rapidly progressing climate change – has not been considered. On this ground the referral should be rejected.

Ramsar listed wetlands

The nearest Ramsar listed wetland is at Bowling Green Bay, which is located about 45 kilometres north of the mouth of the Burdekin River. The Ramsar site is at very high risk from degradation of water quality. The Burdekin Region Water Quality Improvement Plan 2016 (p.45) indicates that during the wet

season, the Burdekin River has the greatest influence on water quality in high risk locations in the region. The proponents identify water quality impacts as having a significant effect on the World Heritage Values of the Great Barrier Reef. Similarly, declining water quality is likely to impact the Ramsar listed wetlands at Bowling Green Bay.

The proponent has not provided any assessment of the impact of the proposed action on Ramsar listed wetlands in the referral. On this ground the referral should be rejected.

Listed species or threatened ecological communities.

- **Poplar box woodland on alluvial plains**

One of the components of this threatened ecological community, *Eucalyptus populnea woodland on alluvial plains* (RE 11.3.2), is highly likely to occur on any alluvial plains in the area affected by the proposed action. Being a woodland with grassy understory, it is subject to grazing impacts, but this doesn't change the ecologically dominant layer, i.e. the poplar box (*E. populnea*) which determines its remnant status. The proponent discounts this community as degraded and weed infested. It must be assessed properly as part of an EIS.

- **Black Ironbox (*E. raveretiana*)**

This listed species is abundant (and includes some of the largest individual specimens) within the proposed dam impoundment. The proponents propose to retain the riparian vegetation, however, these plants will be inundated below the standing water level of the dam. The impact on this species must be assessed in an EIS.

- **Northern Gastric Brooding Frog (*Rheobatrachus vitellinus*)**

The holotype description says *R. vitellinus* is an aquatic species inhabiting shallow sections of fast flowing creeks in rainforest. It is suggested that the species is confined to areas above approximately 300m AHD where the creeks flow across granitic rocks.

The dam proposal will have a Full Supply Level (FSL) at 290m AHD. The Burdekin Falls Dam has a record holding of more than 218% of its FSL. The referral provides no assessment of the impact that any exceedance of FSL would have on streams that may include habitat of *R. vitellinus*. It is likely that during intense rainfall events that a dam would cause streams to back up and flood that habitat.

A large body of permanent water in close proximity to the frog's habitat may provide conditions for increased populations of pigs and other species. This frog is listed as extinct in the wild federally but has not been considered by the proponents. On this ground the referral should be rejected.

- ***Elseya irwini*** (Irwin's Turtle).

E. irwini is likely to comprise the bulk of the biomass of the waterways proposed to be dammed. Water infrastructure is the main threatening process to this species. *E. irwini* requires clear, fast flowing and well oxygenated water for its survival. It is thought to nest in sandy stream banks. Those conditions would be detrimentally affected by a dam.

A proposed listing of this species was rejected in 2009 due to a lack of information on its distribution, population size and population structure. Since then, a substantial effort has been made to determine its distribution, with over 400 specimens examined. Further research is being undertaken to determine the extent of its range and population. It is possible that this species could be listed prior to the commencement of construction of this project. The proponents have not included *E. irwini* in the referral document and on this ground the referral should be rejected.

Pumped Hydro Scheme

The proponent has not referred the Bowen Renewable Energy Hub Pumped Hydro-electric Scheme which is an integral part of this series of linked projects. This component is part of the referral to the Queensland Coordinator General's Office. The pumped hydro-electric scheme is likely to have a significant impact on stream flow and other outcomes that affect matters of national environmental significance. On this ground the referral should be rejected.

Conclusion

While the action could be assessed using an Environmental Impact Statement there are many significant issues that have not been addressed in the referral. The proposed action has the potential to cause a major decline in the environmental values of the river systems and associated ecosystems including a Ramsar wetland and a world heritage area. Given the lack of information in the referral, it should be rejected.