

Attention: Coordinator General c/- EIS Project Manager, Big Rocks Weir project Office of the Coordinator-General PO Box 15517 City East QLD 4002 Australia 07 June 2021

Re: Submission to the draft Terms of Reference for an Environmental Impact Statement for the Big Rocks Weir Project

Dear Sir or Madam,

North Queensland Conservation Council (NQCC) welcomes this opportunity to provide the following comments regarding the draft Environment Impact Terms of Reference (TOR) for the Big Rock Weir (BRW) Project.

NQCC has commented on the ToR of the EIS for the two other of the proposed dam projects on the Burdekin, the Urannah and the Burdekin Falls Dam Raising projects. The ToR for BRW already includes key revisions in the final ToR for these and as a result can be considered quite detailed and rigorous. We fully support the process, and acknowledge how comprehensively the ToR aim to address environmental issues.

We would take this opportunity to reiterate that in addition to comments on the individual projects, NQCC has previously written to the Coordinator General to propose that a <u>Basin-Wide Mechanism for Management of the Burdekin</u> be put into place. This is particularly needed as new demands for water from the Burdekin for agriculture, industry and domestic use arise. The section of the TOR, "Cumulative Impacts" (15.187 – 15.213), is an implicit step towards a Basin-Wide Mechanism for Management of the Burdekin.

We are also pleased to see that the ToR now include a section on "Coastal Processes" (14.42 - 15.49). This is highly relevant given the advanced erosion along Cape Bowling Green, due in part to the capture of bedload sediment by the existing Burdekin Falls Dam. This threatens the integrity of Bowling Green Bay itself. As this is a Ramsar site we have written separately to both the State and Federal Ministers for the Environment to alert them to this.

SPECIFIC AREAS OF CONCERN

1. Aquatic movement

Construction of dams and weirs along the Burdekin have to date not adequately taken into account the movement of aquatic species (fish, turtles etc.) up and down stream. This is should be of prime consideration in the design for BRW. This is generally well addressed in the TOR.

One small revision to 10.2 (h) should be made to include "safe upstream and downstream passage".

2. Environmental flows

The position of the BRW in an upper part of the river means it is dependent for its flows on a more limited area and sub-catchments. As these are very dependent on rain fall from cyclonic depressions the flows can be variable. In years when these are low, and approach 'zero flow' the aquatic life can be seriously damaged. Thus, the design must include means to release water, and clear plans must be in place for release of water to maintain aquatic life in the upper stretch of the river in these conditions.

3. Climate change

There are increasing risks associated with climate change (Australian Academy of Science 2021), including further environmental degradation (Wolanski 2021). Predicting the effects of climate change on freshwater ecosystems requires understanding of the interactions between ecological and hydrological processes at different scales (Davis et al. 2017; John et al. 2021). Coastal wetlands are likely to be especially affected by climate change because of the combined effects of sea-level rise, temperature and rainfall (Grieger et al (2020). The NRM Management Plan (NQ Dry Tropics 2016a) recognises climate change as a major threat to agriculture and biodiversity and aims to make due consideration of it in planning and natural resource management, including protection of habitat refugia. It has been estimated that the Burdekin River might lose 15% of fish species with a 3.2°C increase in global temperature, although for other Australian tropical systems the figure is greater than 50% (Barbarossa et al. 2021). James et al. (2017) predict that climate change will cause many species losses in the Burdekin catchment, including fish, crayfish and turtles. (Personal communication: Prof. R.G. Pearson, 04 June 2021).