The Honourable Lisa Neville Minister for Water Department of Environment, Land, Water & Planning 8 Nicholson Street East Melbourne VIC 3002

Dear Madam,

## GMW Connections Project Environmental Watering Plan (EWP): Greiner's Lagoon

Greiner's Lagoon is the largest of four wetlands making up the Yambuna wetland complex situated on the Lower Goulburn Floodplain, some 25 km upstream of the Goulburn's confluence with the Murray. Historically, the wetlands received water from over-bank flows in the Goulburn; reducing in volume and frequency as the rivers became more regulated. The 20<sup>th</sup> century development of the Goulburn Murray Irrigation District, with its water distribution and drainage network, increased the delivery of water to many wetlands, in the form of water escaping from the network. In the case of Yambuna Wetlands this water came as irrigation outfall to Greiner's Lagoon from the Central Goulburn 5/27/6 channel.

Recovery of irrigation and drainage water 'losses' through improved management efficiency and structural modernisation is the main tool of the GMW Connections Project. However, for such an exchange to be acceptable, it must be achieved without significant ecological damage. Where this cannot be expected and the wetland is considered of high ecological value, an environmental watering plan (EWP) must be created. The EWP is not a wetland management plan but must prescribe the appropriate watering regime (volume, temporal pattern, source) to sustain an agreed target ecosystem, as prescribed in the Water Change Management Framework.

The consulting firm, Jacobs, was engaged to advise on

- a) the need for an EWP for Greiner's Lagoon,
- Ecological Objectives description of components of a wetland ecosystem hypothesised to be supported at the site in the past, prior to river regulation plus, subsequently, engineering works and efficiencies aimed at reducing the volume of escaped water returning to Greiner's Lagoon,
- c) Hydrological Objectives a quantified water regime (usually on a 10-year cycle) estimating the required volume (average annual) needed to satisfy the ecological objectives.

The objectives are summarised as "Provide a watering regime for Greiner's Lagoon that creates conditions suited to the growth of a diverse vegetation community typical of a freshwater marsh, providing habitat for a variety of waterbirds and frogs"

Jacobs consulted widely during the preparation and refinement of the EWP. Those engaged in the process included resource managers from all tiers of government as well as scientists and engineers, Victorian Environmental Water Holder, GMW, Goulburn-Broken CMA, Jacobs Group (Australia) Pty Limited, and the Murray Darling Wetland Working Group. The Yorta Yorta Nation Aboriginal Corporation has provided advice on cultural issues and community science groups including neighbouring landholders, have been actively engaged.

Finally, the Expert Review Panel, comprising Jane Roberts and Terry Hillman, has satisfied the statutory requirements for independent technical supervision. We are convinced that the Greiner's Lagoon EWP describes a management program that will provide sufficient water to sustain an

appropriate marsh ecosystem whilst enabling modern management practices to recover significant volumes of water.

We believe that the data used are the best available and that the steps and procedures set out for this restoration project are in line with current ecological knowledge. It is the opinion of the ERP that the Greiner's Lagoon EWP represents a significant step towards the objectives of the Connections Project and that the plan warrants your approval.

ERP wishes to record its appreciation of the open and constructive support given it by GMW Connections personnel and the positive collaboration of CMA officers.

Yours sincerely,

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Jane Roberts 25 September 2020

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Terry Hillman 25 September 2020