

Toowoomba Office

Suite 1, Capital Place, 195 Hume Street, PO Box 1185, Toowoomba QLD Australia 4350

T +61 7 4632 2511 F +61 7 4632 2599 E toowoomba@rpsgroup.com.au W rpsgroup.com.au

Our Ref: **PR101377**
Date: **9th June 2010**

Attn: Robert Kane
Origin Energy
GPO Box 148
Brisbane, QLD 4001
Robert.Kane@originenergy.com.au

Via: Email**Dear Robert****RE: PROPOSED APLNG WATER DISCHARGE AND IMPACT ON NARRAN LAKES AND GWYDIR WETLANDS**

As discussed previously, I understand that the Department of Environment, Water, Heritage and the Arts (DEWHA) have made a submission on the Australia Pacific Liquid Natural Gas (APLNG) Environmental Impact Statement (EIS). DEWHA have requested further information to substantiate that the Project will not impact on Narran Lakes and Gwydir Wetlands in northern NSW.

The RPS (formerly Conics) report titled *Hydrologic Modelling of Permeate Discharge to Condamine River*, which formed part of the APLNG EIS, modelled a number of Coal Seam Gas (CSG) water discharge scenarios associated with the proposed APLNG project. The results were detailed in the appendices. The maximum discharge scenarios modelled were for release of water at both Talinga and Condabri (Appendix C). This modelling showed that the Balonne River, immediately upstream of Beardmore Dam in Queensland (the model's geographic limit) currently has a Mean Annual Flow of 81% of pre-development flows. The maximum increase with APLNG CSG water discharge at Talinga and Condabri was to 83% of pre-development flows – an increase of 2% of Mean Annual Flow.

As the Condamine-Balonne River flows south-west through Beardmore Dam and past St George the river system breaks into multiple (and in some cases terminal) distributory streams across a wide geographic area. This complex floodplain system extends downstream well into northern NSW before coalescing into the Darling River.

The small modelled increase in flows at Beardmore Dam due to APLNG CSG water addition is unlikely to be volumetrically significant in dam releases for downstream irrigation extraction or for environmental flow purposes. Indeed, intra-annual variability in flows in the Condamine-Balonne River and inherent modelling error would suggest that the small increase in annual flows at the dam will not significantly influence quality or quantity at that point in the river system. For flows that are released downstream, hydrological certainty is difficult (due to the complex floodplain system and associated modelling difficulties) but there is a low likelihood of CSG water transmission through the eastern branches of the distributory system and beyond the Queensland border where it can affect Narran Lakes.

The Gwydir Wetlands are not on the same river system. These wetland areas will not be affected by any CSG water releases in the Condamine-Balonne River system.



Based on the above, there is likely to be minimal (if any) flow of CSG water from the APLNG project (and hence no impact) into Narran Lakes and certainly not Gwydir Wetlands.

I trust this information is sufficient for your purposes, however should you require any further details or clarification, please do not hesitate to contact me.

Yours sincerely
RPS

A handwritten signature in black ink, appearing to be 'David Carberry', written over a horizontal line.

David Carberry
PRINCIPAL - ENVIRONMENT