

It's so much fun thinking about the New Bradfield Scheme, as it raises as many solutions as it does problems. Water, for a drought-prone nation like ours, is a precious resource. The Adani Coal Mine between Clermont and Charters Towers has been the subject of numerous water-based objections by the Greens, for example:

*The mines current water licence allows the mining giant unlimited access to groundwater for 60 years.*

*One of the world's last unspoiled desert oases at Doongmabulla Springs could permanently dry up under Adani's plan to use billions of litres of groundwater.*

*A plan to use another 10 GigaL per year of water for its mine out of the Suttor River through a new, 61km pipeline in addition to their current water licence.*

Less than 60km away lies a component of the New Bradfield Scheme, the Lake Buchanan salt lake (see image), with the potential for 14,440 GL of storage. The idea is that Lake Buchanan storage (once linked up to the infeed from the Hell's Gate Dam flood flows, which in turn obtains a continuous infeed from the Tully River) could provide Adani Mine with the water it needs for the same price without compromising natural surface flows. Gravity feed is possible as Lake Buchanan elevation is at 300m and Adani mine is 240m. This is a win-win.

The dam and aqueduct developed by Adani could in turn be extended further into the Galilee Coal Basin to supply new mines such as the Hancock PL mine at Alpha.

It remains to be determined if the aqueduct could be extended via gravity feed to existing mines in the Bowen Basin in the east due to elevation limitations, much of which is around 300m. Nevertheless, the New Bradfield Scheme could potentially find customers in new and existing coal mines, who would help to finance the capital costs of development while subsidising the agricultural users en route, and protecting the natural surface and ground water.

At the end of the mines' life, Australia would have a permanent water infrastructure based around a renewable resource, water, in exchange for the extraction of the limited resource, coal.