

SUBMISSION TO ACCC'S MURRAY-DARLING BASIN WATER MARKETS INQUIRY: INTERIM REPORT

1. Introduction

We welcome the opportunity to provide input to the inquiry into water markets in the Murray-Darling Basin (MDB). We are academics with an interest in equity in water distributions, especially for Indigenous peoples. We have developed significant expertise relevant to matters within the scope of this Australian Competition & Consumer Commission (ACCC) Inquiry. Dr Lana Hartwig's recently completed PhD is principally concerned with Aboriginal water access and participation in water market activities in the New South Wales (NSW) portion of the MDB. Professor Sue Jackson's research examines the effects of changes in water governance and management, including water markets and trading, on Indigenous communities. We are currently working on a project for the Murray-Darling Basin Authority (MDBA) to baseline Aboriginal water holdings across the MDB.

We direct the ACCC's attention to our various contributions relating to Indigenous water rights, Indigenous water values and the effects of water allocation decisions on Indigenous peoples arising from these and other research projects (e.g. Hartwig, 2020; Hartwig et al., 2018; Hartwig et al., 2020; Jackson, 2017; Jackson et al., 2019; Jackson & Langton, 2012; Tan & Jackson, 2013). We also draw attention to other researchers with relevant publications to this inquiry which are overlooked in the Draft Report (for example, Marshall (2017), Moggridge et al. (2019), MacPherson (2017), Godden & Gunther (2010), O'Bryan (2019), Taylor et al. (2016), Weir (2009); also work by lawyers McAvoy (2006; 2008) and O'Donnell (2013)).

Below we respond to the following key elements of the ACCC's Interim Report:

- the overall findings reported in the Introduction
- *Chapter 4: Buyers and sellers: who trades, what and why.* In particular, the content about First Nations and Traditional Owners groups, and the question: **“What barriers, financial, regulatory or other, do First Nation and Traditional Owner groups currently face to acquiring permanent and temporary water in Basin water markets? Please provide examples of these barriers, as well as evidence of their magnitude, frequency and impact.”**
- *Chapter 6: Water broker roles, practices and conduct.* In particular, the role of brokers in water trade by First Nations and Traditional Owner groups.
- *Chapter 8: Trade processes—advising, matching, clearing, settlement, registration and information.* In particular, questions relating to water registers.

Overall, we affirm the importance of the matters raised in the Murray Lower Darling Rivers Indigenous Nations' submission to the ACCC's Issues Paper. We add empirical evidence to support their assertion that the history of land and water governance and dispossession in Australia has enduring effects on Aboriginal water access and, therefore, opportunities to participate in water markets. We show that for the handful of Aboriginal entities that do hold water entitlements in the NSW portion of the MDB (all acquired through land rights redistribution mechanisms and not any water-specific transfer mechanisms), temporary water trading is viewed favourably and brings particular benefits to Aboriginal organisations. However, understanding the full range of benefits and limitations is a complicated undertaking for a range of reasons not least because, for many Indigenous peoples with whom we have worked, participating in water trade is usually not the preferred means of using and benefiting from water.

2. Trends in Aboriginal water ownership

First, we wish to draw your attention to key findings from our recent publication (Hartwig et al., 2020) that are of relevance to the inquiry. The full-length publication is available online [here](#) and accessible to the public. This publication details the intertwined and complex history of land and water tenure in NSW within the MDB, detailing the implications for current Aboriginal ownership of water rights in the context of the water market. This paper also profiles current Aboriginal surface water holdings in the NSW portion of the MDB including distribution across SDL resource units, and documents losses to these holdings in the decade from 2009 to 2018.

We acknowledge that “The ACCC’s terms of reference does not extend to considering the concerns about historical lack of access or dispossession of water rights of Traditional Owner groups in the Basin” (ACCC, 2020, p. 170). However, we assert – and our research shows – that the current barriers and challenges that Traditional Owner groups face regarding permanent and temporary water access and trading cannot be understood in isolation from this history.

Aboriginal people entered the current era with very limited water holdings due to several overlapping factors. First, initial British occupation dispossessed most Aboriginal peoples of their land and the water rights attached to land under colonial laws. Then, land restitution processes introduced from the 1970s onwards limited the amount of irrigable land available for Aboriginal people to claim (Hartwig et al., 2020). Around the time that these restrictive land restitution processes were introduced, and Indigenous native title rights (rights to land and water) were recognised by the common law, the legal frameworks regulating water were restructured. At this critical juncture in water governance reform, the inequitable pattern of water rights distribution inherited from the colonial era was exacerbated by grandfathering water rights to then existing rights-holders (Hartwig et al., 2020). Key water resources in the Basin were “closed” to establish water markets and restore waterways at this time. Moreover, native title and specific purpose licence mechanisms have so far offered no meaningful means of redistributing water use rights to First Nations (Tan & Jackson, 2013). In fact, some land rights arrangements in NSW prevented Aboriginal people from acquiring water entitlements, or at least made it extremely difficult to do so.

The constellation of these historical circumstances strongly shapes current patterns of non-Aboriginal and Aboriginal water access in two interconnected ways that are of concern to the inquiry. First, Aboriginal people today have very small water holdings. As of 2018, Aboriginal organisations in the NSW portion of the MDB hold just 0.2% of all available water (Hartwig et al., 2020). Our recent Basin-wide baseline exercise estimates that Aboriginal holdings across the whole Basin are even less than 0.2% (Hartwig & Jackson, forthcoming). These findings, like the analysis in Chapter 4 of the ACCC’s Interim Report, indicate just how little water is held by Aboriginal people.

Second (and interconnectedly), with surface water systems across the MDB fully allocated, Aboriginal people are unable to apply for water access and entitlements as others have done for generations. Instead, the only option for Aboriginal people to secure water entitlements that are equivalent to those held by other water users now is the water market. We recognise that the water market itself was not the mechanism by which this widespread water dispossession of First Nations occurred (though see next section). However, by permitting and facilitating permanent and temporary water sales, the market framework and “architecture” further normalises this current inequitable distribution of water rights.

Following the principle of the right to self-determination enshrined in international law, how Aboriginal entities may choose to use, manage, or benefit¹ from water entitlements should be a matter for First Nations to decide. This may include (for example) directly applying water to Aboriginal-held land for a number of different uses and outcomes

¹ Following Gimelli et al. (2018), we understand benefit (interchangeable with value and enjoyment) to encompass “not only basic needs, but the broadest range of benefits for people” (p. 5), including their broader aspirations and the opportunities and outcomes that they (individuals, groups, or other collectives) value. In this way, benefits can include any and all economic, financial, social, cultural, spiritual, community and other types of outcomes and should be determined by Aboriginal communities.

like watering wetlands, which can support environmental, community, cultural, employment and/or perhaps tourism activities (Jackson & Langton, 2012). Another example is irrigating and producing crops for community consumption and/or wider sale, thereby potentially improving living standards and socioeconomic positions (Carrasco, 2016; Nyberg, 2014). A further option is trade of water, which has the potential to generate income for Aboriginal organisations that can then be used for an array of social, community or economic outcomes, as determined by that organisation and community (see Hartwig, 2020).² However, the ability of all Aboriginal people to enjoy fully this broad array of uses, benefits and outcomes associated with water access, including water market participation, is constrained by the historical events described above.

Clearly current water access and distribution cannot be separated from historical processes that have affected access and dispossession. In other words, historical lack of access and dispossession are not just “concerns” but also are actual barriers that “Traditional Owner groups across the Basin are currently facing when seeking to acquire permanent and temporary water” (ACCC, p. 170). We urge the ACCC to reconsider this crucial point and respond to it more fully.

Our research uncovers other findings that are also pertinent to the inquiry. We show that during the last 10 years, the small volume of Aboriginal held water has declined. In the NSW portion of the MDB, Aboriginal water holdings declined by 17% from 2009 to 2018 (Hartwig et al., 2020). Remaining Aboriginal-held entitlements in this region continue to be vulnerable to further losses as well. In Hartwig et al. (2020) we characterised these recent losses as a new wave of dispossession.

We identified several causes with the most significant being forced permanent sales of water associated with liquidation of Aboriginal organisations. Pressures that influence the financial viability of Aboriginal landholding organisations are well known (see, for example, Chalk and Brennan, 2015; Norman, 2015; Palmer, 1988). Possible reasons for liquidation are numerous, but generally are attributable to poor organisational management, ineffectual governance arrangements and/or difficulties in establishing and maintaining financial viability as required by legislation. Additionally, holding land and water involves considerable on-going costs and, therefore, any uses of water and land that are unprofitable can become financially unsustainable over the medium- to long-term. These market-related impositions require Aboriginal water holders to maximise their economically productive use of water or risk insolvency. In other words, opting-out of markets entirely is not an option for Aboriginal land and water holders, regardless of their preferences for using their lands and waters (see Hartwig et al., In press).

From our research with Indigenous communities, it is abundantly clear that Australian governments need to take immediate action to advance Indigenous water rights across the board in order to enable water market engagement should Indigenous organisations seek to pursue this activity. This must include the redistribution of water rights and policy and programmatic measures to stem the loss of valuable holdings in the MDB. In mid-2018 the Federal Government committed A\$40 million to purchase water entitlements for Aboriginal people across the Basin for both cultural and economic purposes. Two and a half years later, no water entitlements have been purchased with these committed funds (Foley, 2020). Moreover, the quantum of this funding commitment represents a mere 0.18% of the market value of the 11 “major” surface water entitlements in 2018/19 in the Southern Basin alone (Aither, 2019), calling into question the scale of potential impact of these funds. For comparison, Aboriginal advocates argued 20 years ago, when water was less costly, that A\$250 million was needed to redistribute water more equitably across NSW alone (see McAvoy, 2008). The reliability and security of water access under purchased water entitlements, which can affect the material benefits derived from water, is another key concern (Hartwig et al., 2020).³

This research points to the vulnerability of Indigenous water holdings and the potential for adverse effects from water markets. Indeed, it now appears that not only have water reforms neglected Indigenous rights and interests; alongside other economic pressures on Indigenous organisations, they have also exacerbated inequities in water

² It should not be limited or constrained by government policies or regulations.

³ So too is the need for land (detailed further in Hartwig et al. In press).

rights holdings. Governments do not appear to be aware of this downward trend in Aboriginal water ownership uncovered in NSW, let alone consciously working to alter it. Failure to appropriately recognise and address contributing factors may result in further reductions to Aboriginal water holdings. This is of particular concern given that a coalition of peak bodies representing Indigenous sector organisations is negotiating with state, territory and Commonwealth governments to agree on targets for Indigenous control of interests in water across Australia as part of the national Indigenous affairs policy *Closing the Gap* (CATSIPO & Australian Governments, 2020, p. 47).

3. Insights about Aboriginal participation in surface water trading

In what follows, we present key insights and findings from Hartwig's PhD research of relevance to the inquiry. These findings are not yet published but we can provide further information if required.

This research examined Aboriginal water holders' aspirations for and experiences of using and benefiting from their water, including water trading.⁴ The intent of this focus was to address these research gaps as well as to scrutinise claims that holding tradeable water entitlements leads to greater Aboriginal control over water resources, thereby contributing to self-determination. These insights were developed through interviews with 13 Aboriginal organisations that hold surface water entitlements across the NSW portion of the MDB, ten of which had at least once traded their water allocations and/or entitlements between 2004-05 and 2017-18.⁵ We also analysed water trading behaviours of these ten entities during this period using data from water registers in NSW.

A. Key trends

The trading activities across the ten Aboriginal organisations interviewed involved 16 separate water licences in both the northern and southern basin portions of NSW. Temporary water sales were the most common water trading activity of these organisations with most, though not all, of these temporary water sales associated with entitlements to regulated systems. Our analysis revealed that the number of Aboriginal organisations selling water allocations and the number of individual water sales generally increased over the observed 14-year period.

These temporary water sales occurred via two methods. The main method was sales on the temporary allocation or "spot" market. Between 2004-05 and 2017-18, nine of the 10 interviewed representatives' organisations sold water allocations in 110 separate sales on allocation markets.⁶ Allocation volumes sold ranged from 7.6 ML to 3,000 ML per individual sale, with a median of 167 ML. Selling prices ranged from \$4.50/ML to \$1,050/ML, with a median of \$100/ML.

From our data, the second, less prevalent, method of temporary water sales by Aboriginal organisations was via bundled land and water arrangements (as opposed to water only sales). This included two forms: combined commercial land and water leases, and share farming. Only two organisations traded water in these combined land and water arrangements during the examined period, and at the time of interviews only one still did.

In both methods of water trade, most interviewees reported that their organisation sold all their allocated water. As one interviewee explained:

"We know we don't use any of our water. We're a licence holder that doesn't use any of our water. We're in a slightly different position [to other holders] where we know whatever

⁴ Aboriginal water holders include Aboriginal organisations only. Data limitations mean there is no way to identify Aboriginal individuals that hold water (see Hartwig, 2020).

⁵ Our research finds there are at least 21 Aboriginal organisations across this area that currently hold commercially valuable (i.e. mainstream and not "Aboriginal-specific") water entitlements.

⁶ Only trades where a market price is recorded are included here. Some \$0/ML trades exist, but interviews indicate these were mostly associated with the transfer of environmental water as well as moving water between two licences held by the same organisation.

the allocations are, that we can sell. And we can sell straight away—we're not looking and saying, 'We might need that water later in the financial year.' We won't."

This behaviour is similar to that of "professional water sellers" described by Bjornlund (2004), and conforms to what Larder et al. (2017) call the "own-lease out" approach of water investors. By way of distinction, though, no representatives interviewed by Hartwig (2020) reported purchasing water allocations or entitlements, and so in that way the behaviour of Indigenous organisations differs from water investors or speculators. It is worth noting that water brokers or other legal representatives generally prompted and always facilitated water sales across these two temporary water sale methods. We will return to the role of brokers below.

Only one Aboriginal organisation had engaged in one permanent water sale at the time of interviews.⁷ This entity sold a small portion (22 ML or 5%) of their original entitlement in early 2013 as part of the Australian Government's irrigation efficiency upgrade program. In exchange for this water, the organisation's irrigation channels and paddock infrastructure were upgraded, which addressed issues they previously had with excess water run-off and evaporation losses. The secretary of this organisation recalled: "We would never have saved the money to do that [upgrade] without selling that water." Improvements to infrastructure has enabled the organisation's members to grow wheat and seed, and therefore generate income. They use the same infrastructure to deliver environmental water to a wetland of ecological importance and spiritual significance located on their property. With the exception of this one organisation, all others expressed considerable opposition to permanently selling part or all of their water entitlements.

B. Benefits

We found that Aboriginal organisations that hold water entitlements viewed their entitlements as significant assets. This is consistent with the interim findings of the ACCC's Inquiry. Many interviewees described their organisations as "lucky" or "fortunate" for having their water entitlements noting, their significant beneficial value both in financial and other terms, and some called their entitlements "assets".

Consistent with findings reported by Loch et al. (2012) who write about non-Aboriginal irrigators, we found Aboriginal water holders were very motivated to sell their water allocations due to income generation. This is also consistent with the ACCC Interim Report's broad interim finding that "water trade benefits users". Critically, though, interviewees mostly reported using their income from water allocation sales to offset immediate and future running costs, including property rates and maintenance of plant and equipment. Somewhat ironically, interviewees described how they often used this income to pay water entitlement fees and local government water rates associated with other properties for which they manage (e.g. houses on former missions). As one organisation's representative explained: "We'd never sell it because when it's gone, it's gone! ... You wouldn't be able to pay your running costs!"

Most Aboriginal organisations shared their experiences of selling their water allocations, noting it provided "quick" and "easy" income to help them meet financial liabilities without the restrictions and administrative burdens typical of other income sources commonly accessed by Aboriginal organisations. Aboriginal water traders described this income as advantageous because it is free from external influences and onerous reporting requirements typically tied to their other income sources (like grants and funding). This sense of financial independence is felt more strongly by organisations that receive large sums for their water on a semi-regular basis. However, the ad hoc nature of water allocation sales and its variability and unpredictability were challenging factors for Aboriginal organisations, especially those that relied heavily on this means of income.

⁷ We are aware that two other Aboriginal organisations have permanently sold portions of water entitlements since this time.

In sum, Aboriginal water traders reported that financial income is the primary direct benefit they derive from water trading because it:

- is fungible and “liquid” in that it facilitates access to quick cash;
- requires minimal effort and places little burden on their time or capacity;
- is free from onerous reporting;
- has the potential to generate a suite of subsequent flow-on benefits for their communities; and,
- offers flexible income that can be used for any purposes as determined by the Aboriginal organisation.

C. Complexity

Assessing the full social and economic benefits of these trades, however, requires considering the wider aspirations held for Aboriginal land and water, as well as for community development.

While representatives described how their Aboriginal organisational benefit from selling water allocations on the market, many asserted that this was generally not their preferred way of using or benefiting from their water entitlements. Eleven of the 13 interviewed organisations aspired to use their water allocations themselves through direct application to their properties, particularly to support or (further) develop farming, irrigation, and grazing practices at commercial scales. Some hoped to use water for generating employment opportunities; for camps and other events, and therefore generate community or cultural benefits; and for watering wetlands on their properties, which could develop cultural and environmental benefits and possibly offer local employment opportunities. While six entities did express some preference for selling allocations, some wanted this to occur alongside other direct use. Some also indicated a preference for trade to only be a short-term or temporary practice until they were better positioned to take up higher prioritised water uses on their lands.

In contrast, many Aboriginal organisations find themselves with no other option but to sell their water allocations in full. This is because (a) they need income to cover the costs of those water entitlements (and, land, etc.), *and* because (b) they are not in a position to use and therefore benefit from their water themselves in ways that they prefer to over water trading. Additionally Aboriginal organisations are becoming *reliant* on water allocation sales as a form of income to meet their operational needs in order to retain their water (and land) rights. Interviewees’ opposition to permanently selling their water entitlements due to the income that temporary trade generates for them indicates dependence on this income for this purpose. We have termed this cyclical situation or dilemma a “water trading trap”.

Our research finds this trap results from the overlap of water markets with the economic pressures and operating contexts of most Aboriginal organisations. That is, typically, Aboriginal organisations face a constellation of interacting threshold factors that include:

- having to meet numerous priorities set for them by government and/or community and/or other stakeholders;
- lack of access to necessary resources and capital including (but not limited to): physical water access infrastructure, water literacy, organisational and individual capital and capacity, and external support;
- complexity of information, an issue described in the ACCC Interim Report (and addressed further below);
- lack of funds to invest in and develop the above resources, capacity and literacy which are necessary for alternative water uses and benefits now and for the future.

Many of these challenges are the result of historical and enduring structural factors, including dispossession.

The overlap in these organisational factors with the water market framework, and the subsequent reliance on water trade income, creates obstacles for Aboriginal organisations wanting to pursue alternative water uses and move away from water trading as some have expressed aspirations to do. Specifically, (an)other comparable income

source will be needed to break their dependence on water allocation sales income, but this is challenging to do given their operating contexts.

We do not wish to diminish the importance of the benefit that water allocation sales may provide many Aboriginal water holders. Instead, we wish to bring attention to factors that sit alongside and constrain these benefits. These factors clearly influence how Aboriginal organisations participate in water markets in the MDB. Adequate attention to these crucial matters should be included in the ACCC Inquiry, as well as other policy initiatives that are under development (such as those initiatives in Box 4.3 of the Interim Report).

D. Information access, water literacy, and water brokers

Another challenge for Aboriginal water holders relates to information access and complexity of policy settings. Water trading behaviour research indicates that water market literacy is developed over time, often through direct exposure to property and/or water use and management, and may be influenced by education and organisational capacity (Hasselman & Stoker, 2017; Loch et al., 2018). Consistent with this, the ACCC Interim Report found that information complexity and failures mean that the markets favour “better-resourced and professional traders who can take advantage of opportunities” (p. 7). Also of relevance here, is the Interim Inspector-General of the MDB Water Resources’ (2020) observations about variable water literacy across the MDB, and the need to improve water literacy, particularly for those that are ‘entering’ the industry.

Aboriginal people are effectively “new entrants” to water holding and trading (Jackson, 2017). Most Aboriginal organisations that hold water have lower water literacy and arguably are not in a position to take advantage of stronger opportunities, or consider longer-term water trade or use option. By way of example, some interviewees recalled that they (and/or predecessors to their roles) only recently learned that their water entitlements and allocations were tradeable. Additionally, they are already stretched in meeting their other organisational obligations and expectations and so have little time or resources to invest in purchasing the services of others more informed about the market (or water use), or to develop their own water literacy and capacity. We hold concerns that the information challenges described in the ACCC Interim report could undercut the benefits of water trade for Aboriginal people – both those that already hold water, and those that may in the future given government commitments to increase Aboriginal water access and ownership.

Aboriginal water traders reported seeking external support and advice to overcome these challenges. They mostly sourced support and advice from water brokers. Crucially, nearly all interviewees spoke positively of the interactions, relationships and trust they had established with brokers. Many expressed satisfaction, indeed gratitude, for the support brokers had provided. Thus, helpful water brokers and legal advisers were important resources for organisations in deriving benefit from their water trade activities, and accessing and understanding information.

Importantly, no interviewees reported any inappropriate behaviour by their water brokers, and we found no other evidence of such behaviour during the course of this study.⁸ However, the concerns raised by the ACCC Interim Report about possible misconduct by brokers is still relevant here. For example: that “some market participants rely on brokers for market information and advice and this creates the opportunity and incentive for brokers to provide incomplete or misleading information to increase the price or volume of a trade, and to increase the market price of a water right” (p 18). If (Aboriginal) water holders have low water market literacy and/or are over-reliant on water brokers, it is possible they may not be as aware of possible inappropriate or misleading actions from brokers compared with others with greater knowledge of the water market.

⁸ We note that we were unable to interview many brokers, so detail on this issue is mostly as Aboriginal organisations reported to us.

In sum, our evidence shows that water brokers are very important resources and services for Aboriginal organisations in terms of their water trading activities. We also see value in strengthening protections against inappropriate broker behaviour.

We agree with the need to improve the quality and timeliness of market information, as well as trade processes and market transparency, as put forward by the Interim Report. Depending on the form and measures recommended this might further empower Aboriginal people to make informed decisions about their water entitlements and trading activities. Alongside any proposed market-wide recommendations and changes, we emphasise that targeted support and education is also needed to build the water literacy and capacity of Aboriginal people and organisations. With targets for improving Aboriginal water interests being developed under the Closing the Gap policy framework, such investment is timely.

Improvements to information access and market transparency may lessen the reliance of Aboriginal entities on water brokers for information access and support in the longer-term.⁹ We recommend that the ACCC, consider the value of brokers to Aboriginal organisations. We are concerned that some of the digital centralisation and streamlining options put forward on page 30 of the Interim Report *might* constrain the development of relationships with brokers; an outcome that could see some Aboriginal groups less likely to trade, or not trade at all. This would not only compromise this much needed income opportunity for Aboriginal entities, but also the water access opportunities that buyers benefit from via these trades.

4. Water registers and harmonisation

As noted in the introduction, we are working on a project for the MDBA to benchmark all Aboriginal water holdings across the MDB (see Hartwig & Jackson, forthcoming). This entailed searching water registers from each Basin State and Territory, and in doing so, we encountered several issues and challenges. Here, we present recommendations from this exercise that are of relevance to the questions about water registers, particularly on pages 41 and 43 of the ACCC Interim Report.

The first challenge we encountered related to inter-jurisdictional differences. These included, but were not limited to, differences in search options, search prices, and in the information provided in search results. On top of this, was the challenge of navigating and understanding the different water entitlement regimes in each jurisdiction and their different searching interfaces.

The second challenge arose from privacy requirements. Owner name based register searches are possible in NSW and Queensland but not Victoria and SA. Assuming one has an unlimited budget, the former option facilitates more rigorous searching and more comprehensive information collection. Searching in the latter states, though, requires a threshold level of information (i.e. knowing water entitlement numbers) before any searching can occur. In the course of our work, we have found some stakeholders (i.e. some Basin State Governments and some First Nations organisations) appreciated greater transparency and access to information, such as that which is possible with the NSW and Queensland searching options, but others were opposed to it, citing privacy and confidentiality reasons.

The third issue was how difficult it was to use water register searches to identify and track change in water ownership over time. Of the Basin jurisdictions, water register/s in NSW are the only ones that offer some capacity to track past water holding changes and transfers. However, the utility of this capacity is constrained by several features. Future monitoring of water entitlements will be difficult and/or problematic without systematic and reliable means to accurately trace water entitlement transfers and cancellations. Indeed, the inability to search for historical water holdings and transfers in public water registers in most jurisdictions undermined our ability to identify and describe changes to Aboriginal water holdings over time in much detail beyond NSW.

⁹ This will, in turn, lessen Aboriginal peoples' vulnerability to the possibility of water broker misconduct.

In light of these water register issues, we strongly support the idea of harmonisation across water registers. We recognise, though, that there are diverse concerns about transparency and privacy, and see that more work to understand and harmonise these different needs and priorities is required. We also suggest that water registers track and report water title transfers, akin to land titles, including cancellations more consistently. Addressing these matters will be important for the Australian Government to track progress for improving Aboriginal water ownership, to be set under the Closing the Gap framework (CATSIPO & Australian Governments, 2020, p. 36).

5. Closing matters

We encourage the ACCC to include additional recommendations for actions to improve Aboriginal water access, which, as we have detailed, ultimately underpins possibilities to engage in and benefit from water trade. Responses in this regard should not be limited to reallocation of water to First Nations, but must also support the empowerment of First Nations to make informed decisions about using and benefiting economically from their water, including water trading, should they desire.

Finally, we wish to bring to your attention that MLDRIN is incorrectly named throughout the Interim Report as Murray Lower Darling Rivers *Aboriginal* Nations whereas it should be *Indigenous* Nations.

Thank you for the opportunity to provide input to this inquiry into water markets in the MDB.

Yours faithfully,

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References

- Aither. (2019). Water markets report: 2018-19 and 2019-20 outlook. Retrieved from <https://www.aither.com.au/water-markets-report-2018-19/>.
- Australian Competition & Consumer Commission [ACCC]. (2020). *Murray–Darling Basin water markets inquiry: Interim report*. Retrieved from <https://www.accc.gov.au/system/files/Murray-Darling%20Basin%20inquiry%20-%20interim%20report.pdf>.
- Bjornlund, H. (2004). Formal and informal water markets: Drivers of sustainable rural communities? *Water Resources Research*, 40(9), W09S07. doi:10.1029/2003WR002852.
- Carrasco, A. (2016). A biography of water in Atacama, Chile: Two Indigenous community responses to the extractive encroachments of mining. *The Journal of Latin American and Caribbean Anthropology*, 21(1), 130-150. doi:10.1111/jlca.12175.
- Chalk, A., & Brennan, S. (2015). The relevance of statutory land rights to native title and empowerment. In S. Brennan, M. Davis, B. Edgeworth, & L. Terrill (Eds.), *Native title from Mabo to Akiba: A vehicle for change and empowerment?* (pp. 143-157). Sydney, Australia: The Federation Press.
- Coalition of Aboriginal and Torres Strait Islander Peak Organisations [CATSIPO], & Australian Governments. (2020). *National Agreement on Closing the Gap*. Canberra: National Indigenous Australians Agency. Retrieved from National Indigenous Australians Agency website: <http://web.archive.org/web/20200926040101/https://www.closingthegap.gov.au/sites/default/files/files/national-agreement-ctg.pdf>.
- Foley, M. (2020, October 23). 'Disturbing' delay in recruiting Indigenous Murray Darling board member. *Sydney Morning Herald*. Retrieved from <https://www.smh.com.au/politics/federal/disturbing-delay-in-recruiting-murray-darling-indigenous-leader-20201023-p567ww.html>.
- Gimelli, F.M., Bos, J.J., & Rogers, B.C. (2018). Fostering equity and wellbeing through water: A reinterpretation of the goal of securing access. *World Development*, 104, 1-9. doi:10.1016/j.worlddev.2017.10.033.
- Godden, L., & Gunther, M. (2010). Realising capacity: Indigenous involvement in water law and policy reform in south-eastern Australia. *The Journal of Water Law*, 20, 243-253.
- Hartwig, L.D. (2020). *Aboriginal water rights in New South Wales: Implications of water governance reform for self-determination* (Doctoral dissertation). Griffith University, Gold Coast, Australia.
- Hartwig, L.D. & Jackson, S. (forthcoming). *The status of Aboriginal water holdings in the Murray-Darling Basin*. ARI Report No. 2020/004. Australian Rivers Institute, Griffith University, Australia.
- Hartwig, L.D., Jackson, S., Markham, F., & Osborne, N. (In press). Water colonialism and Indigenous water justice in south-eastern Australia. *International Journal of Water Resources Development*.
- Hartwig, L.D., Jackson, S., & Osborne, N. (2018). Recognition of Barkandji water rights in Australian settler-colonial water regimes. *Resources*, 7(1), 16. doi:10.3390/resources7010016.
- Hartwig, L.D., Jackson, S., & Osborne, N. (2020). Trends in Aboriginal water ownership in New South Wales, Australia: The continuities between colonial and neoliberal forms of dispossession. *Land Use Policy*, 99, Article 104869. doi:10.1016/j.landusepol.2020.104869.
- Hasselmann, L., & Stoker, G. (2017). Market-based governance and water management: The limits to economic rationalism in public policy. *Policy Studies*, 38(5), 502-517. doi:10.1080/01442872.2017.1360437.
- Interim Inspector-General of MDB Water Resources. (2020). *Impact of lower inflows on state shares under the Murray–Darling Basin Agreement*. Retrieved from Department of Agriculture, Water and the Environment website: https://www.igmdb.gov.au/sites/default/files/documents/iig_final_report.pdf.
- Jackson, S. (2017). Enduring and persistent injustices in water access in Australia. In A. Lukasiewicz, S. Dovers, J. Robin, J. McKay, S. Schilizzi, & S. Graham (Eds.), *Natural resources and environmental justice: The Australian experience* (pp. 121-132). Melbourne, Australia: CSIRO Publishing.

- Jackson, S., Hatton MacDonald, D., & Bark, R.H. (2019). Public attitudes to inequality in water distribution: Insights from preferences for water reallocation from irrigators to Aboriginal Australians. *Water Resources Research*, 55, 6033-6048. doi:10.1029/2019WR025011.
- Jackson, S., & Langton, M. (2012). Trends in the recognition of Indigenous water needs in Australian water reform: The limitations of 'cultural' entitlements in achieving water equity. *The Journal of Water Law*, 22(2-3), 109-123.
- Larder, N., Sippel, S.R., & Argent, N. (2017). The redefined role of finance in Australian agriculture. *Australian Geographer*, 49(3), 397-418. doi:10.1080/00049182.2017.1388555.
- Loch, A., Bjornlund, H., Wheeler, S.A., & Connor, J. (2012). Allocation trade in Australia: a qualitative understanding of irrigator motives and behaviour. *Australian Journal of Agricultural and Resource Economics*, 56(1), 42-60. doi:10.1111/j.1467-8489.2011.00575.x.
- Loch, A., Wheeler, S.A., & Settre, C. (2018). Private transaction costs of water trade in the Murray–Darling Basin. *Ecological Economics*, 146, 560-573. doi:10.1016/j.ecolecon.2017.12.004.
- Macpherson, E. (2017). Beyond recognition: Lessons from Chile for allocating Indigenous water rights in Australia. *University of New South Wales Law Journal*, 40(3), 1130-1169.
- Marshall, V. (2017). *Overturing Aqua nullius: Securing Aboriginal water rights*. Canberra, Australia: Aboriginal Studies Press.
- McAvoy, T. (2006). Water – Fluid perceptions. *Transforming Cultures eJournal*, 1(2), 97-103.
- McAvoy, T. (2008). The human right to water and Aboriginal water rights in New South Wales. *Human Rights Defender*, 17(1), 6-9.
- Moggridge, B.J., Betteridge, L., & Thompson, R.M. (2019). Integrating Aboriginal cultural values into water planning: A case study from New South Wales, Australia. *Australasian Journal of Environmental Management*, 26(3), 273-286. doi:10.1080/14486563.2019.1650837.
- Norman, H. (2015). *What do we want? A political history of Aboriginal land rights in New South Wales*. Canberra, Australia: Aboriginal Studies Press.
- Nyberg, J. (2014). The promise of Indian water leasing: An examination of one tribe's success at brokering its surplus water rights. *Natural Resources Journal*, 55(1), 181-203.
- O'Bryan, K. (2019). *Indigenous rights and water resource management: Not just another stakeholder*. Abingdon, UK: Routledge.
- O'Donnell, M. (2013). The National Water Initiative, native title rights to water and the emergent recognition of Indigenous specific commercial rights to water in Northern Australia. *The Australasian Journal of Natural Resources Law and Policy*, 16(1), 83-100.
- Palmer, I. (1988). *Buying back the land: Organisational struggle and the Aboriginal Land Fund Commission*. Canberra, Australia: Aboriginal Studies Press.
- Tan, P.-L., & Jackson, S. (2013). Impossible dreaming – does Australia's water law and policy fulfil Indigenous aspirations? *Environmental and Planning Law Journal*, 30, 132-149.
- Taylor, K.S., Moggridge, B.J., & Poelina, A. (2016). Australian Indigenous water policy and the impacts of the ever-changing political cycle. *Australasian Journal of Water Resources*, 20(2), 132-147. doi:10.1080/13241583.2017.1348887.
- Weir, J.K. (2009). *Murray River Country: An ecological dialogue with traditional owners*. Canberra, Australia: Aboriginal Studies Press.