Water Theft Project
Murray-Darling Basin

EXPLORING WATER THEFT - DISCUSSION PAPER NO. 2

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Acknowledgement of Country

We acknowledge the First Nations of Australia as the custodians of Country, the land and waters. We pay our respects to all Elders past and present of the more than 50 First Nations that continue to protect and defend the land and waters in the Murray-Darling Basin where we are conducting this research.

We recognise that the theft of land and water in the settler-colony of Australia is first and foremost the result of dispossession of First Nations' Country. The lands and waters of the Murray-Darling Basin Country have never been ceded.

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Executive Summary

‘After 12 years of neglect, it’s time to get serious about water theft.’
(Nature Conservation Council, 2023)

Due to its increasing scarcity, fresh water has become a highly valued global market commodity with entrepreneurs advising speculators on how to advance their portfolios through innovative freshwater investments whilst upholding sustainable development objectives (Williams, 2023). Moreover, there is no shortage of global economic advice on the best ‘water stocks’ to maximise profits in the face of climate change and diminishing potable freshwater ‘resources’ (Whitakker, 2024).

Its acquisition through investment or theft, is therefore, often a profitable enterprise. Water theft, defined by Interpol (2016: 33) as ‘the unauthorized use and consumption of water before it reaches the intended end-user’ constitutes between 30-50 per cent of the global water distribution and commercialisation (Loch et al. 2020). However, the associated environmental and social impacts of water speculation and water theft remain under researched and largely unknown (Eman, 2023).

Above: Bonley Creek, NSW 2020

Figure 1: Map of the Murray-Darling Basin (White, 2019).

Illegal and Unauthorised Take

The Murray–Darling Basin (MDB) is the largest river system in Australia, covering 14 percent of the nation's landmass and crossing the borders of Queensland, New South Wales (NSW), Victoria, South Australia and the Australian Capital Territory (ACT). This unique expanse of freshwater tributaries traversing one million square kilometres (Murray-Darling Basin Authority, 2023a, 2023b) is an ecological wonderland that is home to thousands of species of flora and fauns that rely upon the flow of fresh water for ongoing survival.

Collectively the Basin State jurisdictions refer to water theft as the acquisition of fresh water without a license or in contravention of license conditions (Barclay and Bartel, 2015). This occurs through pumping, diversion and supply of and interference with freshwater supplies either from surface water bodies, such as lakes, rivers and creeks, or groundwater aquifers.

What is defined as theft in legislation varies significantly. In NSW and the ACT, the theft of water is referred to as the *illegal* take or taking of water without, or otherwise than authorised by, a water license *(Water Management Act 2000 NSW s60A; Water Resources Act 2007 ACT s77A)*. In Queensland, South Australia and Victoria, the theft of water is referred to as the unauthorised take or taking of water without a license unless authorised to do so under other legislation *(Water Act 2000 Qld* s808(1)(2)), from a prescribed water source *(Landscape South Australia Act 2019 SA* s104(1)) or share of a local catchment *(Water Act 1989 Vic* s33E). In Victoria, the wrongful taking of water is used to describe the theft of water that belongs to a water corporation or authority before it reaches its intended user or destination *(Water Act 1989 Vic* s289).

The theft of planned environmental water from a Water Resource Plan managed by the Commonwealth Government is also stipulated as an offence at the federal level *(Water Act 2007* s73A).

Different forms of water theft as defined in legislation across the Basin States are discussed in more detail below. These include illegal water infrastructure, meter tampering, groundwater theft, breaking an embargo, illegal tankers and smuggling, and floodplain harvesting.

Opposite: Lower Darling Barka, NSW 2024

Illegal Water Infrastructure

In the MDB, owners and occupiers of private property have basic landholder rights which allow them to take water from an adjacent or nearby water source for the purposes of stock and domestic watering, such as household usage, livestock and fire prevention. If an owner or occupier intends to take water for any other intensive or commercial purpose or to construct a dam or water bore, they require a license (Australian Business License and Information Service [ABLIS], 2023; Lower Murray Water, 2024). In addition to the authorised taking of water with a license, each Basin State stipulates separate license conditions required to construct and use water infrastructure, such as dams and irrigation channels, to impound water, albeit these vary significantly between the states.

In New South Wales, there are two different kinds of approvals relating to water infrastructure. First, a *water supply work licence* authorises its holder to construct water supply works at a specified location and to use water for irrigation. Approvals may be granted to install dams, pumps, bores and canals but these approvals cannot be traded between license holders in the MDB (ABLIS, 2023; WaterNSW, 2023). An individual or corporation can be charged for water theft by illegally constructing and operating water infrastructure without this approval *(Water Management Act 2000 NSW* s91B). Second, a *water use approval license* authorises its holder to use water for a particular purpose, such as irrigation, from a particular water source or at a particular location (WaterNSW, 2023). While each Basin State includes offences for *taking* water without a license, NSW is the only Basin State to detail an offence for *using* water contrary to its intended purpose (*Water Management Act 2000 NSW* s91A). An irrigator could, for example, be fined for using water to grow cotton rather than grapes prescribed in their water use approval.

NSW is also the only Basin State to detail offences for constructing and using drainage works without an approval *(Water Management Act 2000 NSW* s91B and 91C) and to legislate the use of an official stop work order for and removal of unlawful water management works *(Water Management Act 2000 NSW* s327 and 329).

In Queensland, two different kinds of authorisation are needed to legally construct and operate water infrastructure. First, a *development permit* is needed to construct and modify a new or existing dam under the *Planning Act 2016 QLD* (s49). The owner must also undertake an impact or risk assessment of the dam's walls and structural integrity to minimise risk of potential harm before submitting an application (Business Queensland, 2021). Failure to follow these requirements can result in the owner being charged for constructing illegal water infrastructure *(Planning Act 2016 QLD* s163). Second, a *resource operations license* is needed to operate existing or proposed water infrastructure. This license allows the holder to interfere with the flow of water to the extent necessary to construct or use water infrastructure to which the license applies *(Water Act 2000 QLD* s176). A resource operations license can only be held by the individual or corporate owner of the water infrastructure and without it, water cannot legally be pumped or impounded onto private property (Business Queensland, 2022). Constructing and using illegal waterworks to take and impound water is only recognised as a water theft offence in Queensland if it contravenes the conditions of a resource operations license *(Water Act 2000 QLD* s813 and s820).

In the ACT, only one license is needed to both develop and operate water infrastructure in addition to taking water with an entitlement and allocation.

In the ACT, a *waterway works license* authorises its holder to carry out construction or alteration on or around a local waterway in which water flows *(Water Resources Act 2007 ACT* s41). However, if this artificial development 'adversely affects... the flow or quality of water, or the aquatic habitat, in the waterway', with or without a license, the person or corporation can be charged for an offence (s77C).

In Victoria, like the ACT, only one license is needed to both develop and operate water infrastructure in addition to taking water with an entitlement and allocation.

In Victoria, a *works license* is required to construct, operate, alter or decommission a dam that is located on a local waterway (which collectively refers to rivers, creeks, wetlands and estuaries) (Department of Energy, Environment and Climate Action [DEECA], 2023a) determined to be of ecological value and importance *(Water Act 1989 Vic* s67). Instead of applying for a works license to the relevant state department responsible for water governance as is the case in other Basin States, the landholder must apply to their local water corporation (see below) which is responsible for granting permissions for and monitoring works licenses within its catchment (DEECA, 2023b). Without this license, the landholder can be fined for obstructing local waterways in Victoria *(Water Act 1989 Vic* s75). However, if a dam is not located on a local waterway, the landholder may construct a private dam for stock and domestic watering without a license providing there are no potential hazards to human or ecological health (DEECA, 2023a). An individual can also be charged for building on, or interfering with, infrastructure and property belonging to a water corporation that delivers water to its intended customers *(Water Act 1989 VIC* s288).

While Queensland, NSW, Victoria and the ACT require separate licenses to develop water infrastructure in addition to taking water, a landholder in South Australia must apply for a standard permit to construct and use a dam, levee or channel as a part of the terms of their water access entitlement *(Landscape South Australia Act 2019 SA* s121). The Minister for Environment and Water and their delegates then 'may grant a license… [for water take and infrastructure] in respect of prescribed water course, lake or well' subject to their opinion and discretion (s122(2)). However, a landholder must first apply to the Nature Vegetation Council, an independent body established by the *Native Vegetation Act 1991 SA*, before they clear native vegetation to construct and operate a dam (Department for Environment and Water, 2023). Clearance to remove native vegetation will be permitted provided consent is granted by the relevant local council and it has been established that the development results in a significant environmental benefit, such as growing native vegetation surrounding the dam *(Native Vegetation Regulations 2017 SA* s13 and s20). If the 'taking of water consists of the erection, construction, modification, enlargement or removal of a dam, wall or other structure that collects or diverts water' without authorisation or a permit, a landholder may be charged for unauthorised take (Landscape South Australia Act 2019 SA s104(1b)). The Minister for Climate, Environment and Water may also direct the owner to remove or modify a dam that collects, diverts or impedes the flow of water (s111).

In 2020, a cotton company was charged $252,000 for the 2015 construction and use of an illegal two-kilometre irrigation channel without the necessary water supply work approval. However, the NSW Land and Environment Court found that "There is no suggestion… that the Company has breached any license held by it or that it has been involved in water theft of any type" *(Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v Budvalt Pty Ltd; Harris* [2020] NSWLEC 113: para 118).

According to the Environmental Defenders Office (2020: para. 6), the cotton company's' conduct did not amount to water theft because the company did not contravene the conditions of its access license to take water, which is separate from the approval required to build and use an irrigation channel (see also Independent Commission Against Corruption, 2020).

Figure 2: Case study on charges of illegal infrastructure in NSW.

Figure 3: Water meter with telemetry, southern NSW 2020.

Meter Tampering

Where water meters have been installed on public and private property, water theft can involve tampering with or bypassing metering equipment to take water without it being measured. Meter tampering refers to the unauthorised interference with and alteration, damage or removal of meters or metering equipment to restrict or prevent the recorded measurement of water. Meter tampering is an offence in all Basin States.

Most of the Basin States, with the exception of Victoria, maintain their own legislative provisions that proscribe tampering with metering equipment and other critical infrastructure as illegal *(Water Act 2000 Qld* s811; *Water Management Act 2000 NSW* s91K; *Water Resources Act 2007 ACT* s77J; *Landscape South Australia Act 2019 SA* s230). The responsibility to ensure that water users comply with the metering requirements stipulated on their water access license rests with the relevant state water regulator. For example, in NSW, water meters are read and checked by the National Resource Access Regulator (NRAR, 2022), which functions as the compliance and enforcement branch of the Department of Planning and Environment.

In Victoria, by contrast, meters are owned, read and maintained by statutory water corporations that comprise Victoria's state-owner water sector legislated under the *Water Act 1989*. Water corporations provide a range of services to their customers, including urban and rural water supply, sewage and drainage, and are tasked with ensuring the compliance and enforcement of license conditions within their customer database (DEECA, 2023c). There are eighteen water corporations across Victoria, with six of them stipulated in the Victorian MDB.

Victoria is also the only Basin State to detail offences for tampering with meters that belong to a water corporation and measure water before it reaches its intended user or destination *(Water Act 1989 Vic* s288). NSW is the only Basin State to detail offences for failing to install, use and maintain metering equipment, maintain metering records and for taking water and reporting water take when metering equipment is not working, in addition to meter tampering *(Water Management Act 2000 NSW* s91H-s91J). South Australia may also issue a notice to an individual for failing to comply with the direction to install a meter *(Landscape South Australia Act 2019 SA* s115(4)).

In December 2022, a former property owner and manager of an Adelaide Hills vineyard, was charged with 22 counts of water theft and one count of property damage on the Mannum pipeline in South Australia.

Covert cameras detected the former manager illegally opening and tampering with the valve on the pipeline to release water into a nearby creek between 2019 and 2020, for which the vineyard received the benefit of irrigation *(DCCRM-21-833 Director of Public Prosecutions for the State of South Australia v Trevor Dean Mueller:* 2).

Figure 4: Case study on charges of meter tampering in SA.

While some meters are controlled electronically and remotely by water regulators, other meters remain manually controlled, lack the capacity to be read remotely (requiring site visits by state field officials), generate only retrospective data, and can be easily tampered with (ICAC, 2020; see also Hart et al, 2017).

The Murray-Darling Basin Authority has recognised the limitations on metering in the MDB and has stipulated that each Basin State 'must have compliant meters based on the AS4747 standard by July 2025, or have relevant exemptions or grandfathering in place' (Inspector General of Water Compliance, 2021: 3).

Figure 5: Thule Creek, NSW 2020.

Groundwater Theft

When surface-water storages run low, farmers and local communities might extract groundwater through artificial bores and holes drilled into an aquifer beneath their property (Holley et al, 2020). By drilling into these groundwater systems, farmers become less reliant on surface-water but still face the same legal requirements as they do to pump and store surface-water. However, legal groundwater extraction is compromised by illegal groundwater take. The construction of unauthorised bores and drilling of groundwater without a license or in contravention of license conditions significantly depletes groundwater levels, which provides approximately 14 percent of the annual water supplies for users in the MDB (Holley et al, 2020; Ross et al, 2022). The subterranean location of groundwater makes it far more difficult to monitor and its theft harder to detect. This conceals the immediate impact of extraction on water availability. The International Association of Hydrogeologists (cited in Parliament of Australia, 2021: 85) argued it is even more difficult for Basin State water regulators to monitor the extraction of groundwater with license conditions than surface water extractions (Ross et al, 2022).

This is because groundwater extraction involves multiple entitlement holders and bores, geographically dispersed over hundreds of square kilometres with varying depths of aquifers, and this dispersion stretches regulatory and compliance agencies' resources (Holley et al, 2020).

Each Basin State has enacted their own laws for groundwater theft, albeit these vary significantly throughout the MDB. For example, Queensland and NSW are the only Basin States to list separate legislative provisions for groundwater theft, which is detailed as an offence by drilling unauthorised bores *(Water Act 2000 Qld* s816/818) or interfering with an aquifer (*Water Management Act 2000 NSW* s91F/G and s328) without a license or in contravention of license conditions. In Victoria, South Australia and the ACT, the theft of groundwater is included as an offence under the states' laws for other forms of illegal or unauthorised take, which covers both surface and groundwater extractions *(Water Act 1989 Vic* s33E; *Landscape South Australia Act 2019 SA* s104(1); *Water Resources Act 2007 ACT* s77A). South Australia is the only Basin State to enact provisions to charge an individual for altering and failing to maintain the conditions of a well (bore) which, if unchecked, could be used to steal groundwater *(Landscape South Australia Act 2019 SA* s104(3)(a/b) and s119(1)).

In March 2023, two farmers were fined for groundwater theft in NSW.

An irrigator was charged $26,250 for pumping groundwater in excess of bore extraction limits during a drought in early 2020. Judge Prichard found that "beyond reasonable doubt, that the defendant's over-extraction posed an increased risk of harm to the environment… [and] to undermine the regulatory scheme of the WM Act" *(Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v Robert Beltrame* [2023] NSW Land and Environment Court 18: para. 76).

Another irrigator was charged $156,000 for taking groundwater in breach of bore extraction limits and taking water not in accordance with a licenced water allocation between July 2017 and June 2020. Judge Pepper noted that the irrigator "being a third generation farmer… admitted to possessing a general level of awareness that environmental harm would result from the over extraction of groundwater" (*Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v Salvestro* [2023] NSW Land and Environment Court 34: para. 130).

Figure 6: Case studies on groundwater theft in NSW.

Breaking an Embargo

An embargo is defined as an official ban or restriction on trade or other commercial activity for a specified period of time.

In Queensland *(Water Act 2000* s28-32), New South Wales *(Water Management Act 2000* s110-112), South Australia *(Landscape South Australia Act 2019* s109) and the ACT *(Water Resources Act 2007* s71), the relevant minister for water may impose a temporary or permanent embargo or moratorium relating to the taking and use of fresh water at their own discretion. This may be due to drought, the contamination and therefore limited availability of fresh water, or to conserve environmental flows to protect natural ecosystems. A notice of restriction must be published online or gazetted in each Basin State in order for it to legally take effect.

In Victoria *(Water Act 1989* s141) water corporations are responsible for imposing temporary water restrictions for irrigation and other household purposes within their own designated catchments, rather than the state (DEECA, 2023d). While each Basin State has enacted law for imposing and contravening an embargo, the taking of water during an embargo is recognised as an additional offence for water theft in South Australia *(Landscape South Australia Act 2019* s104-105) and the ACT *(Water Resources Act 2007* s77H).

Figure 8: Wilcannia, NSW 2020.

In 2019, a cotton farmer was fined $190,000 for taking water contrary to a Ministerial Direction that imposed temporary water restrictions along the Barwon-Darling River in 2015 while metering equipment was not operating properly.

Judge Preston found that the cotton farmer "knew that there was an embargo on pumping from that water source [Barwon-Darling River]" and was aware of the water shortages for which an embargo was imposed prior to taking water *(Water NSW v Barlow* [2019] Land and Environment Court of NSW 30: para. 68). The Judge also found that the cotton farmer had the capacity to check whether metering equipment was operating properly, which amounted to "complete control" over the causes giving rise to the offences" *(Water NSW v Barlow* [2019] Land and Environment Court of NSW 30: para. 51) (see also Independent Commission Against Corruption, 2020).

Figure 9: Case study of water embargo being breached in NSW.

Illegal Tankers and Smuggling

In recent years, residents and local news outlets have witnessed and reported several acts of water theft throughout the MDB that remain unsolved. These acts involved offenders tapping into and siphoning water from residential and commercial buildings at night using tankers or trailers, often leaving victims confused about missing water and high water bills. Whether such acts of water theft are undertaken by individual offenders or are constituent of a broader network of organised water smuggling warrants further investigation.

In April 2020, the Bendigo Advertiser reported that a Returned Services League (RSL) in Victoria was forced to install security cameras after people 'were backing trailers in and filling up 4000 to 5000 litre water containers, then taking off' with approximately $20,000 worth of water (O'Callaghan, 2020: para. 7).

In June 2020, local news outlet the Stanthorpe Border Post (2020) reported that local police noticed unknown persons had stolen 30,000 litres of water from a local dam using a pre-existing pump and large tanker or semi-trailer in Applethorpe, Queensland.

In July 2020, local news outlet the Goulburn Post (2020) reported that a local water delivery company was fined for taking water from a fire hydrant and filling private tankers in Goulburn Mulwaree, Victoria.

Figure 10: Case studies of illegal water tankers and smuggling in the Murray-Darling Basin.

Figure 11: Weir at Wilcannia, NSW 2020.

Floodplain Harvesting

Floodplain harvesting involves 'the collection, extraction and impoundment of water flowing across floodplains, including rainfall run-off and overbank flow,' before it connects with water channels downstream (Legislative Council, 2021: 1). The capacity of private on-farm storages to hold floodplain waters in NSW has increased by 142 per cent since 1994 (Slattery and Johnson, 2021a). While floodplain harvesting supports large-scale agricultural and economic development, the failure to adequately manage, prevent and prosecute this form of water take has been repeatedly highlighted in government inquiries (see Legislative Council, 2020, 2021).

In 2021, the NSW Parliament Legislative Council Select Committee on Floodplain Harvesting noted that the 'NSW Government has failed to meet its obligations under the Murray-Darling Basin Agreement by allowing the unchecked growth of unregulated floodplain harvesting extraction to volumes well in excess of the 1994 Murray-Darling Basin Cap' (Legislative Council, 2021: x).

Under the Wate*r Act 1912 (NSW)*, the NSW State Government was given powers to license floodplain harvesting in the Northern Basin, but the licensing provision was never applied as there was, at the time, no general requirement or need to limit total overall water extractions within the Act. Instead, harvested floodplain water was treated as a 'freely available bonus to a farmer's licensed entitlement' (NSW Government, 2018, cited in Slattery and Johnson, 2021b: 14). The expansionary phase of water market development, throughout most of the 20th century up to the 1980s, then saw the rapid growth of irrigation and on-farm storages for floodplain harvesting (Australian Academy of Science, 2019; Cummins and Watson, 2012).

Following the decline of inland flows and deterioration in riverine conditions due to over-extraction and drought by the turn of the century (Connell and Grafton, 2011; Wheeler et al, 2014), the *Water Management Act 2000 NSW* brought about the requirement for a license for all water extractions and impoundments across the state. While floodplain harvesting clearly falls into the activities that the *Water Management Act 2000 NSW* requires to be undertaken by way of license, it continued to be managed in an unlicensed form of water diversion by the state under the *Water Act 1912 NSW* (Inland Rivers Network, 2007; Slattery and Johnson, 2021b). This is because a 'floodplain' was never gazetted or proclaimed by the state government as an official source for water take under the *Water Management Act 2000* in NSW (Legislative Council, 2021). Therefore, the NSW Select Committee on Floodplain Harvesting found that floodplain harvesting without a license does not constitute an offence under section 60A of the *Water Management Act 2000 NSW*, which has enabled irrigators in northern NSW to harvest and impound floodplain water for more than two decades.

While New South Wales legislation considers floodplain harvesting as a historical and legitimate practice, there was ambiguity and uncertainty whether floodplain harvesting is a legal or illegal form of water diversion. Between 2020 and 2022, there were three attempts by the NSW National Party to legalise floodplain harvesting without a license in NSW and to exempt irrigators from the need to hold a work approval for building water infrastructure, all of which have resulted in disallowance motions in the NSW state parliament (Davies, 2022; Legislative Council, 2020, 2021). This was followed by a fourth attempt to license floodplain harvesting in NSW, which was also disallowed (NSW Department of Primary Industries and Environment, 2024).

As of March 2023, four out of the five major riverine valleys in the Northern Basin, including the Barwon-Darling, Gwydir, Macquarie and Border Rivers, in NSW have been implemented into the licensing framework for floodplain harvesting. This means that landholders who wish to divert and impound floodplain waters require a floodplain harvesting license with an approved water supply work approval, and primary metering equipment with telemetry to be installed within 12 months of the license being issued. The Namoi River is the last riverine valley to be updated with floodplain harvesting regulations in NSW (NRAR, 2024).

Various scholars (Baird, 2024; Baird et al. 2024; Beasley, 2021; Grafton and Williams, 2019) argue that such efforts to legalise excessive water take, including from riverine floodplains, in NSW are harmful and mainly benefit the corporate irrigation industry. According to the Independent Commission Against Corruption (2020), while there is no evidence of mediated water corruption between bureaucrats or politicians and corporate irrigators, water management decisions, including those related to floodplain harvesting, have been prioritised in favour of irrigation over concerns for the environment.

The report by the Commission (2020: 8) also noted that 'certain decisions and approaches taken by the department with responsibility for water management in NSW over the last decade were inconsistent with the object, principles and duties of the WMA *[Water Management Act 2000]*'. As a form of water take, floodplain harvesting has reduced water availability for downstream communities and the environment and currently undermines the objectives and implementation of the Murray-Darling Basin Plan (Baird, 2024).

In 2020, a Former Water Minister in NSW lifted an embargo (intended to replenish downstream communities with water) to allow upstream irrigators to freely extract and divert floodplain water without an access license or water supply work from the 9th to the 13th of February (Legislative Council, 2020).

This decision was legislated as the NSW Government's initial attempt to regulate floodplain harvesting, known as the *Water Management (General) Amendment (Exemptions for Floodplain Harvesting) Regulation 2020* (6th February), which saw irrigators floodplain harvest without a license in the Barwon-Darling, Gwydir, Namoi, Narrabri and Narromine Valleys, all of which feed into the Darling River (Legislative Council, 2020).

Figure 12 (top): Captured floodplain water, Darling Barka River 2020; Figure 13 (bottom): Former NSW Water Minister lifting embargo in 2020; Opposite: Opposite: Lower Darling Barka, NSW 2024.

Discussion

Water theft is a common occurrence today in regions experiencing water stress and insecurity, and is of increasing importance both in Australia and worldwide. It is an environmental crime and harm that threatens the security and sustainability of freshwater availability for communities, both human and non-human (Bricknell, 2010; Felbab-Brown, 2017). Global heating and climate change is exacerbating the conditions – such as drought and desertification – that provide fertile ground for increased levels of conflict over water, including water theft (IPCC, 2023).

Aside from legal definitions of water theft – as outlined in this briefing paper – there are other considerations and responses to the illegal taking of water. For instance, 'taking of water from a river' is generally not in itself criminalised or a crime in its own right as long as it is undertaken within the framework of licensing provisions. The status of the activity is, as such, defined by whether it is subject to legal restrictions or licensing provisions. This means that it is not *defined* as theft unless it has been expressly prohibited and/or involves breach of license conditions, despite the possibility for great harm to be caused, *legally*, within the provisions of this legal and regulatory framework.

How the taking of water is perceived and conceived is not only subject to these legal definitions. It is also a social process. The seriousness of the harm, for example, will vary according to stakeholder, the location of the phenomenon, and nature of who or what is harmed by the taking of water. Harm such as the unauthorised taking of water, or legal over-extraction, are perceived differently depending on immediate circumstances (e.g., drought conditions) and geographical location (e.g., upstream or downstream). This is reflected in media studies of water theft that indicate that those further downstream from the river headwaters are impacted more profoundly by water taking upstream, and are also those most likely to see water theft as a 'crime' since they are most adversely affected (Clifford and White, 2021). For some, especially small family farmers experiencing drought conditions and agricultural hardship, the taking of water illegally may be considered a 'folk crime', something that everyone does 'legitimately', given the extenuating circumstances (White, 2019). From a regulatory perspective, the perception of harm is important since harms may variably be construed as:

- Breaking of rules, and the response might simply be a 'warning';
- Illegal behaviour, for example, breaching of license conditions, and for which the response might be an administrative fine or civil order to desist from particular actions; and
- A criminal offence, involving breach of criminal law and therefore warranting penalties such as fines and even imprisonment (White, 2019).

Jurisdiction and Water Theft Offence		Maximum Penalty
QLD	Unauthorized taking, supplying or interfering with water (Water Act 2000 Qld s808(1)(2)).	$257,742
NSW	Taking water without, or otherwise authorized by, an access licence (Water Management Act 2000 NSW s60A).	$1,100,000 or 2 years prison for an individual $5,005,000 for a corporation
ACT	Unlicenced taking of surface or ground water (Water Resources Act 2007 ACT s77A).	$8,000 or 6 months prison for an individual $40,500 or 6 months prison for a corporation

Table 1: Summary of Maximum penalties for Water Theft (see Loch et al. 2024: 383).

Jurisdiction and Water Theft Offence		Maximum Penalty
VIC	Unauthorized taking of water from a waterway, aquifer, spring or soak or dam in a declared water system (Water Act 1989 Vic s33E).	$230,772 or 10 years prison for an individual $1,153,860 for a corporation
SA	Unauthorized, unallocated or unentitled taking of water from a prescribed watercourse, lake or well or take surface water from a surface water prescribed area (Landscape South Australia Act 2019 SA s104(1)).	$25/kilolitre of water taken or $50,000 for an individual Or $100,000 for a corporation, whichever is greater
Cth	Taking water from a water resource for which a water resource plan for the area applies and that taking of water would constitute a contravention of the law of a State if any fault element or state of mind requirement were to be satisfied in relation to the taking of the water (Water Act 2007 s73A).	$313,000 for an individual $3,130,000 for a corporation

Table 1 (continued): Summary of Maximum penalties for Water Theft (see Loch et al. 2024: 383).

How harm is defined, measured, and presented, and by whom and why, has a great bearing on water regulation, prevention and enforcement. How the Basin States deal with water theft as transgression rests upon specific legislative parameters. But it also very much depends on social circumstance, the balance of elite and community power and interests, the nature of intervention by regulators, and public perceptions of what is fair and just. The penalties imposed by courts for water theft (see Table 1) in Australia are modest at best and inconsequential compared to the overall profits available to commercial entities that engage in orchestrated or incidental water theft (Loch et al. 2024). Fines and penalties may simply be calculated into the 'cost of doing business' (White, 2016: 118) and governments might see their interests as being served by the continued profitability of corporate agricultural entities rather than risking fines that are debilitating[iv].

Yet, as this paper identifies, there is an emerging court rhetoric that asserts the importance of fresh water and the intolerance that must be adopted to its unlawful take.

Fresh water is a profitable commodity to be traded on markets, where drought and water scarcity only serve to increase its monetary value. However, the uneven commodification and marketisation of fresh water around the globe has led to a situation where water theft is on the rise. This will be examined further in *Discussion Paper Three: Water Markets*.

As Judge Durrant stated during sentencing in the case of Trevor Dean Mueller:

"Water is a limited resource. Offending like yours is difficult and expensive to detect. The state owns water and manages water resources on behalf of the community. The state puts in place sophisticated arrangements and makes significant infrastructure investment to ensure water resources are used efficiently and effectively. The community must, therefore, be protected from this type of offending. While you must be personally deterred, the role of general deterrence particularly significant. Others must be deterred from offending in this way to both avoid harm to the community and to ensure the confidence of domestic and commercial users of water in the ability of the state to manage our water resources is maintained." *(DCCRM-21-833 Director of Public Prosecutions for the State of South Australia v Trevor Dean Mueller: 2-3*)

Figure 14: Extract from legal transcript about water theft in SA.

Endnotes

Comment by Nature Conservation Council Water Campaigner, Melissa Gray (cited in Barnard, 2023) after the NSW Land and Environment Court upheld findings of criminal liability against two Northern Murray-Darling Basin irrigators for water theft.

The word **'resources' is deliberately** presented in quotation marks because, in our view, it is contentious terminology and often misused to construct fresh water solely as a resource for commercial activity and human consumption. Whilst recognising that fresh water has become the object of trade and fiscal enterprise, we see it as important as a starting point for fresh water sustainability, to view it not as a stock, asset or a 'new oil' for market capital nor for corporate, business and/or personal wealth accumulation. Instead, we view fresh water first and foremost as a global common, an essential of life that must be protected and preserved for all living fauna and flora. Access to fresh water is a globally recognised 'right', that is fundamental to human dignity, health and prosperity (UN Water, 2024). This position has been upheld by the Australian High Court in Arnold v Minister Administering the Water Management Act 2000 where a state decision to reduce the volume of water extracted on private property under licence did not amount to a devaluation of land as the water 'a species of property right' yet not an asset of land ownership. Furthermore, in the subsequent High Court decision of ICM Agriculture Pty Ltd v The Commonwealth ruled that farmers and landowners did not have private rights to groundwater because 'it was a natural resource, and the State always had the power to limit the volume of water to be taken from that resource'. Here the High Court of Australia uses the language of resource to describe fresh water, not as a commodity for private commercial ownership and gain, but as a phenomenon of nature where the State has power to govern and control access to its volume.

Water Resource Plans establish rules for how water can be taken and used from riverine catchment level in the Murray-Darling Basin, while ensuring enough water is made available to the environment. Basin State governments are responsible for complying with Water Resource Plans and accounting for water taken from the river system for non-environmental purposes under the Murray-Darling Basin Plan (MDBA 2024).

The recently passed Environment Protection Legislation (Stronger Regulation and Penalties) Bill 2024 in the NSW Parliament includes doubling the maximum penalties for serious offences up to $10 million for a corporation and $2 million for an individual (Environment protection Authority, 2024). This amendment serves as a stark reminder of the changing political and public appetite of the overall seriousness of environmental crime, but how the increased penalties are reflected in future cases involving water theft remain to be seen.

References

ABC Four Corners (23 July 2017) '*Pumped: Who's benefitting from the billions spent on the Murray-Darling*', ABC, accessed 2 July 2023.

Australian Academy of Science (2019) *Investigation of the causes of the mass fish kills in the Menindee region NSW over the summer of 2019-2019*, AAS, accessed 3 October 2023.

Australian Business License and Information Service (2023) *Water Supply Work and Use Approval – New South Wales*, ABLIS, accessed 5 September 2023.

Baird A, Walters R and White R (2021) 'Water theft malfeasance in Australia', International Journal of Crime, Justice and Social Democracy, 9(3):83-97, Doi: 10.5204/ijcjsd.v10i1.1604

Baird, A (2024) Farmers as allies towards ecological justice: Lessons from colonialism, water markets and theft in Australia's Murray-Darling Basin, In Lobo, M, Mayes, E and Bedford, L (eds) Planetary Justice: Stories and Studies of Action (pp. 39-53). Bristol University Press.

Baird A, Bedford L, Walters R and White R (2024) *Project Description, Objectives and Methods*, The Water Theft Project.

Barclay E and Bartel R (2015) 'Defining environmental crime: The perspective of farmers', Journal of Rural Studies, 39:188-198, *https://doi.org/10.1016/j.jrurstud.2015.01.007*

Barnard C (2023) *NCC welcomes court decision on water theft, call for stronger sentencing in the future*, Nature Conservation Council, accessed 9 March 2024.

Beasley R (2021) Dead in the water: A very angry book about our greatest environmental catastrophe... the death of the Murray-Darling Basin, Allen & Unwin, *https://doi.org/10.1080/07900627.2021.1914003*

Opposite: Lower Darling Barka, NSW 2020

Bricknell S (2010) *Environmental Crime in Australia*, Research and Public Policy Series No. 109, Australian Institute of Criminology, Canberra, accessed 3 March 2023.

Business Queensland (2021) *New Dams and Raising Existing Dams*, Business Queensland, accessed 5 September 2023.

Business Queensland (2022) *Resource and distribution operation licenses*, Business Queensland, accessed 5 September 2023.

Clifford K and White R (2021) 'News media framing of the Murray–Darling Basin 'water theft' controversy', Journal of Criminology, 54(3):365-382, *https://doi.org/10.1177/00048658211000094*

Connell D and Grafton Q (2011) 'Water reform in the Murray-Darling Basin', Water Resources Research, 47:1-9, *https://doi.org/10.1029/2010WR009820*

Cummins T and Watson A (2012) 'A hundred-year policy experiment: the Murray- Darling Basin in Australia', in Quiggin J, Chambers S and Mallawarrachchi T (eds) Water Policy Reform: Lessons in Sustainability from the Murray-Darling Basin (pp. 9), Edward Elgar Publishing

Davies A (24 February 2022) '*NSW parliament rejects flood plain harvesting laws for third time over sustainability concerns*', The Guardian, accessed 25 September 2023.

Department of Energy, the Environment and Climate Action (2023a) *Types of waterways*, DEECA, accessed 10 November 2023.

Department of Energy, the Environment and Climate Action (2023b) *Private Dam Licensing*, DEECA, accessed 6 September 2023.

Department of Energy, the Environment and Climate Action (2023c) *Water corporations*, DEECA, accessed 11 November 2023.

Department of Energy, Environment and Climate Action (2023d) *Water restrictions and rules*, DEECA, accessed 21 November 2023

Department for Environment and Water (2023) *Create or expand existing dam*, DEW, accessed 7 September 2023.

Eman K (2023) 'The Harms and Crimes of Water Theft and Pollution', Criminology and Criminal Justice, *https://doi.org/10.1093/acrefore/9780190264079.013.773*

Environmental Defenders Office (1 October 2020) *Case Summary: Corporate Irrigator found guilty of breaching the Water Management Act*, EDO, accessed 10 November 2023.

Environment Protection Authority (21 March 2024) '*Landmark environmental reforms pass NSW parliament*', EPA, accessed 22 March 2024.

Felbab-Brown V (2017) *Water theft and water smuggling: growing problem or tempest in a teapot?*, Brookings, accessed 1 April 2023.

Ford Z, Kingsford R, Jackson S, Bino G and Brandis K (2022) *The Menindee Lakes Water Savings Project – an example of poor decision-making*, Centre for Ecosystem Science, School of Biological, Earth and Environmental Sciences, University of New South Wales, Sydney, accessed 9 March 2024.

Goulburn Post (28 July 2020) 'Company cops fine after water theft from hydrant', accessed 5 August 2023, Newsbank.

Grafton RQ and Williams J (2019) 'Rent-seeking behaviour and regulatory capture in the Murray-Darling Basin, Australia', International Journal of Water Resources Development, 36(2-3):484-504, *https://doi.org/10.1080/07900627.2019.1674132*

Hart BT, Doolan J, Bunn SE, Horne A and Pollino CA (2017) 'Future Challenges', In Decision Making in Water Resources Policy and Management. Academic Press. pp. 343–356. *doi:10.1016/B978-0-12-810523-8.00001-X*. *ISBN 9780128105238*.

Holley C, Mutongwizo T, Pucci S, Castilla-Rho J and Sinclair D (2020) 'Groundwater regulation, compliance and enforcement: insights on regulators, regulated actors and frameworks in New South Wales, Australia', in Sustainable Groundwater Management (pp. 411-433), Springer, Cham.

Independent Commission Against Corruption (2020) *Investigation into complaints of corruption in the management of water in NSW and systemic non-compliance with the Water Management Act 2000*, ICAC, accessed 13 July 2023.

Inland Rivers Network (2007) *Managing floodplains and rivers for the future- floodplain development and water extraction in inland NSW, Submission- Inquiry into the Water Bill 2007 and Water (Consequential Amendments)*

Bill 2007, Inland Rivers Network, accessed 23 September 2021.

Inspector General of Water Compliance (2021) *Metering Report Card*, IGWC, accessed 10 November 2023.

Intergovernmental Panel on Climate Change (2023) *AR6 Synthesis Report: Climate Change 2023*, IPCC, accessed 10 March 2024.

Interpol (2016) *Strategic Report: Environment, Peace and Security – A Convergence of Threats*, Interpol, accessed 17 August 2023.

Loch A, Croft M, Adamson D and Giancaspro M (2024) 'Assessing effective deterrence of theft in transboundary water systems', *Nature Water*, 1-10.

Legislative Council (2020) *Impact and implementation of the Water Management (General) Amendment (Exemptions for Floodplain Harvesting) Regulation 2020*, NSW State Government, accessed 12 August 2023.

Legislative Council (2021) *Select Committee on Floodplain Harvesting*, NSW State Parliament, accessed 21 August 2023.

Loch A, Pérez-Blanco CD, Carmody E, Felbab-Brown V, Adamson D and Seidl C (2020) 'Grand theft water and the calculus of compliance', *Nature Sustainability*, 3(12):1012-1018.

Lower Murray Water (2024) *Domestic and Stock*, LMW, accessed 22 March 2024.

Murray-Darling Basin Authority (2023a) *Basin Plan*, MDBA, accessed 9 March 2024.

Murray-Darling Basin Authority (2023b) *Plants and Wildlife*, MDBA, accessed 9 March 2024.

Murray-Darling Basin Authority (2024) *Water Resource Plans*, accessed 30 July 2024.

National Resource Access Regulator (2022) *Progress Report 2021-22*, NRAR, accessed 19 September 2023.

National Resource Access Regulator (2024) *Floodplain Harvesting*, NRAR, accessed 2 June 2024.

NSW Department of Primary Industries and the Environment (2024) *Disallowed Amendments*, NSW DPIE, accessed 13 August 2024.

O'Callaghan T (21 April 2020) 'Bizarre, petty thefts force RSL to install security cameras', *The Bendigo Advertiser*, accessed 5 August 2023, Newsbank.

Ross A, Evans R and Nelson R (2022) 'Risks related to groundwater in the Murray-Darling Basin', *Australasian Journal of Water Resources*, 27(1):31-46, DOI: 10.1080/13241583.2022.2140904

Slattery M and Johnson B (2021a) *Floodplain water harvesting in the Northern New South Wales Murray-Darling Basin*, Slattery and Johnson, accessed 19 September 2023.

Slattery M and Johnson B (2021b) *Licensing floodplain harvesting in Northern NSW: analysis and implications*, Slattery & Johnson, accessed 26 September 2023.

Stanthorpe Border Post (23 June 2020) 'Dam hit by brazen H2O thief', accessed 5 August 2023, Newsbank.

Parliament of Australia (2021) *Select Committee on the Multi-Jurisdictional Management and Execution of the Murray-Darling Basin Plan*, Canberra: Commonwealth of Australia, accessed 21 August 2023.

United Nations Water (2024) *Human Rights to Water and Sanitation*, United Nations, accessed 8 March 2024.

WaterNSW (2023) *Approvals*, WaterNSW, accessed 30 August 2023.

Wheeler S, Loch A, Zuo A and Bjornlund H (2014) 'Reviewing the adoption and impact of water markets in the Murray–Darling Basin, Australia', *Journal of Hydrology*, 518:28-41, *https://doi.org/10.1016/j.jhydrol.2013.09.019*

Whitakker M (12 January 2024) '*7 Best Water Stocks and ETFs to Buy*', *US Money News*, accessed 8 March 2024.

Williams A (2023) *The Liquid Asset: How Water Investments Can Shape A Sustainable Future*, Nasdaq, accessed 9 March 2024.

White R (2016) 'Reparative justice, environmental crime and penalties for the powerful', *Crime, Law and Social Change*, 67:117-132.

White R (2019) 'Water Theft in Rural Contexts', International Journal of Rural Criminology, 5(1):137-156, doi: 10.18061/1811/88725

Legal Cases

Arnold v Minister Administering the Water Management Act (2010) HCA3

ICM Agriculture Pty Ltd v The Commonwealth (2009) HCA51

DCCRM-21-833 Director of Public Prosecutions for the State of South Australia v Trevor Dean Mueller

Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v Budvalt Pty Ltd; Harris [2020] NSW LAND AND ENVIRONMENT COURT OF NSW 113

Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v Robert Beltrame [2023] NSW LAND AND ENVIRONMENT COURT OF NSW 18

Grant Barnes, Chief Regulatory Officer, Natural Resources Access Regulator v

Salvestro [2023] NSW LAND AND ENVIRONMENT COURT OF NSW 34

WaterNSW v Barlow [2019] NSW LAND AND ENVIRONMENT COURT 34

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