DOES THE DESPOILER OF WATER HAVE A PROPRIETARY RIGHT IN THE COMMINGLED PRODUCT? IMPLICATIONS FOR PROPERTY LAW AND CRIMINAL PROCEDURE

LYNDEN GRIGGS*, TERESE HENNING** AND JEREMY PRICHARD***

This paper considers who owns wastewater. Our view is that the common law notions of proprietary rights are incapable of providing the nuanced solution necessary to this question. This solution must encompass the public interest in maintaining a viable and safe waste disposal system. But equally the solution must encompass two new uses of wastewater. First, as water authorities increasingly extract a value from the consumer in respect of wastewater it has become an economic resource to which each member of the public is an important contributor. Second, wastewater is emerging as a potential source of intelligence for criminal investigators. We suggest that proprietary rights do not provide the solution to the dilemma of the ownership of wastewater. Further, while relevant, they do not mark out the boundaries of state obligations or powers in sampling wastewater for the purpose of criminal investigations. The law in this context is uncertain. Potentially it provides few protections to citizens' privacy interests. This places the onus fairly on legislatures to engage with these issues and construct policies and laws that achieve an appropriate balance between the interests of law enforcement agents and those of the citizenry.

I INTRODUCTION

A residence is supplied with water to be used in the toilet. The water is despoiled and flushed. The water authority then sells that product to a horticulturist, viticulturist, farmer or sporting organisation. Does the owner/occupier of the land from where the water was despoiled have any right to claim in the value extracted by the water authority from the recipient of the supplied nutrient rich product? What if, as Prichard and colleagues have suggested, the despoiled water were to be collected by a law enforcement agency as a means of collecting intelligence about the owner/occupier's illicit drug use or engagement in terrorist activity? Whilst the reader may intuitively want to shy away from the question, happy that the routine by-product of our bodily systems are dealt with by another,

- * Senior Lecturer, Faculty of Law, University of Tasmania.
- ** Senior Lecturer, Faculty of Law, University of Tasmania.
- *** Senior Lecturer, Faculty of Law, University of Tasmania.
- Jeremy Prichard et al, 'Developing a Method for Site-Specific Wastewater Analysis: Implications for Prisons and Other Agencies with an Interest in Illicit Drug Use' (2010) 20(2) Journal of Law, Information and Science 15.

the increasing economic value associated with wastewater,² the response of government and quasi-government bodies to impose a direct rent on the supply and use of water, and the potential to detect criminal conduct from the testing of wastewater,³ all demand that this question be addressed. Our initial analysis begins with property law, but we conclude that this fails to reveal the answer. All this examination reveals is a deeper and further set of questions. These questions, however, reveal a more immediate concern. What role can wastewater samples play in the detection of criminal activity? Can the police use wastewater samples as a source of evidence in criminal proceedings? While its use in this regard is in the nascent stages of development, it cannot be ignored. Already wastewater sampling is being used in Australia to gauge drug use in suburban populations,⁴ and researchers foreshadow its use in gathering information on individuals' engagement in crime.⁵ This begs the question whether our present laws are capable of dealing with this situation. Do they encompass this investigative strategy at all? If they do, do they, or indeed can they, achieve an appropriate balance between the needs of investigative agencies and the rights of individual citizens? Our proposal is modest, but fundamental. If the paradigm of property law cannot resolve issues in this area, the legislature should step in.

II THE BACKGROUND TO WASTEWATER SERVICES

A raft of legislative provisions governs the service, delivery, and disposal of wastewater services in Australia.⁶ However, none directly answers the question of ownership. The failure is understandable. Few have sought, until this day, to claim some form of proprietary right in wastewater. Subsequent use or value of the wastewater has been negligible. Of course, as outlined previously, this is no longer the position. The thesis presented here is that the law should resolve this question and determine the answer to ownership from first principles. After all, with an economic value now being attached to the intermixed product, Bentham instructs us to recognise that '[p]roperty and laws were born together and die together. Before laws there was no property; take away laws and property ceases.'⁷ If this Benthamite analysis is to be taken at face value, the absence of a proprietary

- 2 For the purposes of this paper, we restrict wastewater to sewage, rather than a broader view of wastewater as meaning 'superfluous water'.
- Prichard et al, 'Developing a Method for Site-Specific Wastewater Analysis', above n 1.
- 4 Jeremy Prichard et al, 'Measuring Drug Use Patterns in Queensland through Wastewater Analysis' (Peer-Reviewed Paper no 422, Australian Institute of Criminology, *Trends and Issues in Crime and Criminal Justice*, 2012) 1.
- 5 Prichard et al, 'Developing a Method for Site-Specific Wastewater Analysis', above n 1, 26.
- For an overview of these provisions, see LexisNexis, Halsbury's Laws of Australia, vol 28 (at 9 August 2009), 440 Water, 'Drainage and Sewerage' [440–8000] [440–8165]; see also Janice Gray, 'Mine or Ours? Sewage, Recycled Water and Property' in Klaus Bosselmann and Vernon Tava (eds), Water Rights and Sustainability (New Zealand Centre for Environmental Law Monograph Series, 2011) vol 3, 145.
- Jeremy Bentham, Principles of the Civil Code (1802) in C K Ogden (ed), The Theory of Legislation (1931), cited in Janice Gray and Alex Gardner, 'Legal Access to Sewage and the 'Reinvention' of Wastewater' (2008) 12(2) The Australasian Journal of Natural Resources Law and Policy 115, 154.

framework may well undermine the capacity of contemporary sewerage disposal companies to charge for the product routinely sold to large-scale irrigators.

III HOW DOES SOMETHING BECOME PROPERTY?

Our starting point for analysis is the classic statement of the High Court in *Zhu v Treasurer of the State of New South Wales*:⁸

'Property' is a comprehensive term which is used in the law to describe many different kinds of relationship between a person and a subject-matter; the term is employed to describe a range of legal and equitable estates and interests, corporeal and incorporeal. Accordingly, to characterise something as a proprietary right ... is not to say that it has all the indicia of other things called proprietary rights. Nor is it to say 'how far or against what sort of invasions the [right] shall be protected, because the protection given to proprietary rights varies with the nature of the right'.

In similar, terms, the High Court, some five years earlier had commented that:

'property' does not refer to a thing; it is a description of a legal relationship with a thing. It refers to a degree of power that is recognised in law as power permissibly exercised over the thing.⁹

Therefore, what is the legal relationship that exists between an owner/occupier/ user of land and the wastewater discharged from their land? Should a person who contributes to that wastewater through despoiling be entitled to have some degree of power or ownership over the commingled product? After all, that mixed product is now valuable and routinely sold by water authorities to other entities, such as golf clubs, councils, farmers and other owners of expanses of land requiring large quantities of fertilised water. Further, it may be a source of information for criminal investigators. If the 'framework of the concept of property is a socially approved power relationship in respect of socially valued assets',10 can the occupier of the land, a visitor to the land using the toilet facilities with the licence of the occupier, be entitled to claim a right to control and/or exploit the thing that results from defecation and/or urination?¹¹ In this sense, property is part of the transformative economy that sees a thing given the imprimatur of a legally recognised proprietary right because of its economic value. It is the conventional view of property law constructed around the private domain of the individual and the competitive capitalism economic system that underlies Western economies. For the most part this view of property rejects a notion of public trust or the

- 8 (2004) 218 CLR 530, 577.
- 9 Yanner v Eaton (1999) 201 CLR 351, [17].
- 10 Kevin Gray, 'Equitable Property' (1994) 47(2) Current Legal Problems 157, 160, cited in Hannah Yee Fen Lim, 'Is an Email Account "Property"?' (2011) 1 Property Law Review 59, 62.
- 11 Lim, above n 10, 63: 'Hence, property is a legal construct: the two key features of property then are a presumptive right to exclude others (or control over access) and a discretion in the manner of exploitation.'

connectivity of one part of society to another.¹² But as Bennett Moses notes, '[a] decision to treat something as a potential object of property involves more than conceptual considerations, and requires an evaluation of consequences and context.'¹³ Accordingly, and applying a framework of concept, consequences and context, should the indicia of property rights be applied to wastewater and if so, who owns it, and in what proportions?

IV CONCEPT

Water captured by an owner of a rainwater tank is presumably owned by that person. The occupier has control, and can exclude others from using it. This person has the capacity to exercise a degree of power over the water. Does the same analysis apply to the supply of water from a government, quasi-government, or local council authority? Presumably so. The occupier is able to use that water as he or she sees fit, (subject to seasonal dictates such as control exercised by local authorities during times of drought, or to ensure availability of water to fight large scale fires), they can transfer the water to another and others can be excluded from using it. Does this argument differ once there is a mingling of human waste products with the supplied water? Whilst on the one hand it is argued that we have ownership of our bodily waste prior to its passage into the sewerage system, the matter looked at in the larger context of ownership of the human body, is not without controversy. Whilst it is not the purpose here to summarise those competing arguments, others already having done this, the

- For criticism and comment on this view of property rights, see Robert H Cutting, 'One Man's Ceiling is Another Man's Floor: Property Rights as the Double-Edged Sword' (2001) 31 Environmental Lawyer 819; Lynda L Butler, 'The Pathology of Property Norms: Living within Nature's Boundaries' (2000) 73 Southern Californian Law Review 927.
- 13 Lyria Bennett Moses, 'The Applicability of Property Law in New Contexts: From Cells to Cyberspace' (2008) 30 Sydney Law Review 639, 659.
- 14 See Gray and Gardner, above n 7, 151–2. A proprietary analysis has been rare. For example, the European Communities Court of Justice held that where wastewater escapes from a sewerage facility it was still to be considered as waste. It did not address whether a proprietary interest could be established in wastewater. R (Thames Water Utilities) v South East London Division, Bromley Magistrates' Court (Environment Agency as interested party), Court of Justice of the European Communities, Second Chamber, Case C-252/05, 10 May 2007.
- However, it is accepted that the arguments for and against ownership of the body or its parts are finely balanced. For a recent discussion of the arguments for and against this, see Edwards; Re the Estate of Edwards (2011) 4 ASTLR 392 where the issue before the Court was ownership of sperm taken from the deceased husband of the applicant. The applicant was seeking to use the sperm for the purposes of in vitro fertilisation treatment. At [80], the comment of Hulme J, was that 'the law has not remained rigid but has been applied with a flexibility, albeit significantly constrained, in order to meet new situations exposed by the advancement in medical technology.'
- See, eg, Moses, above n 13; Celia Hammond, 'Property Rights in Human Corpses and Human Tissue: The Position in Western Australia' (2002) 4 University of Notre Dame Law Review 97; Bernard Dickens, 'The Control of Living Body Materials' (1977) 27 University of Toronto Law Journal 142; Prue Vines, 'The Sacred and the Profane: The Role of Property Concepts in Disputes about Post-Mortem Examination' (2007) 27 Sydney Law Review 235; Imogen Goold, 'Sounds Suspiciously Like Property Treatment: Does Human Tissue Fit within the Common Law Concept of Property' (2005) 7 University of Technology Sydney Law Review 62; Leone Skene, 'Arguments against People Legally Owning Their Own Bodies, Body Parts and Tissue' (2002) 2 Macquarie Law Journal 165.

the recent primary, as against secondary authority, has shown an inclination to accept property ownership in the human body,¹⁷ with United States authority also according the property moniker to human waste.¹⁸ Urine has long been accepted as belonging to the supplier.¹⁹

V CONSEQUENCES

If for the moment, we accept that human waste is property, what consequences flow from this? First, the human had, at least at one point in time, a proprietary right in that waste. They were able to control it, to exclude others from it, and subject to overriding health legislation, transfer it. But if this conventional property analysis is to apply, then equally questions need to be answered as to the possible abandonment by the owner of any proprietary rights once this waste is flushed into the system. But our opening gambit must be to address the ownership of the intermingled product and how the aliquot share of each of us could be attributed given that at least two parties (and usually more) may have contributed to the valuable resource that is now wastewater.

A Intermingling

The principal substantive question is, of course, what interests do the contributing owners have in a mixed mass to which they have contributed in ascertained proportions?' To answer this, the journey to discovery began with Caesar. The Roman law drew a distinction between fluids and granular mixtures. The mixing of fluids led to *confusio*, (ie a blending together), whereas granular mixtures led to *commixtio* (where items retain their physical integrity). The former was to result in common ownership, the latter continuing ownership for each owner of her or his contributed part. Separability was the key. Today, science tells us this is nonsense. However, the common law was never to be thwarted by mere scientific implausibility, the practicality of having to adjudicate disputes between two warring parties and the community expectation that this be resolved ensured that a solution be sought and located. As far as fluids was concerned this was to be found in the genesis of Roman law. So for example, in *Indian Oil Corporation v Greenstone Shipping Company SA*, *The Ypatianna*, Indian Oil had their product

- 17 Edwards; Re the Estate of Edwards (2011) 4 ASTLR 392.
- 18 Venner v State of Maryland, 354 A2d 483, 498-9 (1976), cited in Gray and Gardner, above n 7, 152.
- 19 R v Welsh [1974] RTR 478.
- 20 Peter Birks, 'Mixtures' in Norman Palmer and Ewan McKendrick (eds), Interests in Goods (LLP Incorporated, 2nd ed, 1998) 227, 232.
- 21 Ibid 233. In addition to this there was also *accessio*, where the smaller item was merged with another (the impregnation of an animal) in this situation, the principle was that the owner of the larger item retained everything: *Appleby v Myers* (1867) LR 2 CP 651; *McKeown v Cavalier Yachts Pty Ltd* (1988) 13 NSWLR 303. There also existed the principle of *specificatio* (a raw material is used to produce something of a different identity such as converting grapes into wine). Little authority exists on *specificatio*, Michael Bridge, *Personal Property Law* (Blackstone, 1st ed, 1993) 83.
- 22 [1988] QB 345 ('Indian Oil').

mixed with the product of another. As they were the innocent party in this mistake, they sought to recover the entirety of the oil that was in the hold of the ship. The Court refused to accept this. The previously accepted penal rule that the innocent part was to be entitled to everything²³ was to be softened.²⁴ The general principle where two things are commingled was that the new product belongs to the former owners as tenants in common in accordance with their respective contributions.²⁵ Applying this to the instant scenario, the despoiling of the water results from one, the supply by the water authority, and then two, the actions of the occupier. This occurs with expectation, agreement and mutual understanding — ownership vests in common between the parties. But of course, there remains the practical difficulty. Unlike *Indian Oil*, where the dispute was between two parties, wastewater will be, most commonly, the joint efforts of a large number of people. The difficulties in attributing the individual shares are immense. For this reason, if no other, the solution appears to be in legislative reform where the public policy values can be outlined, debated, argued, and established.

An additional possibility to the notion of either common, or indeed continuing ownership, is that the law could decide that property rights are not owned by anybody and that the mixture becomes *bona vacantia*. Whatever option people may be instantly drawn towards, the inherent need of the common law for evidence based solutions to sustain the conclusions it draws, may lead us to conclude that notions of property provide little assistance. These evidential concerns include highlighting how we determine the exact contribution that one makes to the 'anonymous mass' with further questions about contribution to volume as against value.²⁷

B Abandonment

An understandable retort to any notion of ownership, be it by way of intermingling or otherwise, is that the defecator or urinator will have abandoned ownership, assuming they had some property rights in the first place. The general principle surrounding abandonment is easy to state. Abandonment of personal property can only occur where there is both the physical act of abandonment, and more significantly, an intent not to, at any time, claim ownership.²⁸ The cases rarely accept that abandonment has occurred. For example, in *Moorhouse v Angus & Robertson [No 1] Pty Ltd*,²⁹ an author had allowed a manuscript to remain with a publisher from 1972 to 1978. The lack of any effort to recover was not seen as evidence of abandonment. As noted by Bradbrook, MacCallum and Moore,

²³ See, eg, Lupton v White (1808) 15 Ves 432, 33 ER 817; F S Sandeman & Sons v Tyzack and Branfoot Shipping Co [1913] AC 680.

²⁴ See the comments by Bridge, above n 21, 84.

²⁵ See Gill & Duffus (Liverpool) Ltd v Scruttons Ltd [1953] 2 All ER 977.

²⁶ Birks, above n 20, 246.

²⁷ Ibid 248. Birks considers that '[i]t is difficult to find direct English authority for this, [favouring a calculation based on value rather than volume] but it is clearly accepted in the civilian tradition.'

²⁸ See Hibbert v McKiernan [1948] 2 KB 142; Re Jigrose [1994] 1 Qd R 382.

^{29 [1981] 1} NSWLR 700.

'[t]he reluctance to accept abandonment may reflect a view that responsibility [for personal property] should not be able to be renounced as readily as a simple act of discarding.'30 By contrast to this, Hering suggests, at least in the American framework of a constitutional protection of privacy that 'once wastewater enters a sewer main, it is conveyed to the sewer company and is no longer the homeowner's property.'31 In an Australian context, and in the absence of primary authority expressing such a dogmatic position, the authors remain unconvinced that this is *necessarily* the framework that would be adopted. At the very least, a contrary position is open for acceptance. Whilst the service provided by the sewerage company may well give it the authority to dispose of that waste, pending such disposal any abandonment of ownership has not yet occurred. Furthermore, there is American authority that suggests that the notion of abandonment is not something that would normally be accepted in relation to the disposal of garbage. By analogy, the same position may apply in relation to sewerage.³² That is, that abandonment does not occur until the sewerage company deals with the wastewater in such a way that the item becomes irretrievable, despite the obvious low probability of persons requesting such a return. Gray and Gardner by contrast suggest that abandonment may occur at the point of flushing:

Accordingly, once the toilet is flushed, the householder relinquishes his or her title and the wastewater becomes the property of the sewerage network operator, who can resist the claim of a householder if he or she later tries to claim title over his or her sewerage.³³

VI CONTEXT

The consequences and concept of property allows, at least at first blush, an argument that the occupier of land is entitled to make some claim in a proprietary right over wastewater. But the context of land ownership, public health, the interconnectedness of services such as wastewater disposal and its importance within the community in which one lives, all point to a belief that proprietary analysis is not the solution we seek.³⁴ As we discussed, to ascribe property to something is to give the identified person the capacity to exercise power over that item. Underlying this may well be economic efficiency, a labour theory of work and skill, social utility or some other broad philosophical justification for

- 30 Adrian Bradbrook, Susan MacCallum and Anthony Moore, Australian Property Law Cases and Materials (Thomson LawBook Co, 3rd ed, 2007) 120.
- 31 Christopher L Hering, 'Flushing the Fourth Amendment Down the Toilet: How Community Urinalysis Threatens Individual Privacy' (2009) 51 Arizona Law Review 741, 756, citing United States v Spain, 515 F Supp 2d 860, 863 (2007).
- 32 Ibid. The author quotes *Nelson v State*, 286 SE 2d 504, 505–6 (1981) where it was held that the flushing of cocaine was the legal abandonment of it. However, Hering adds: 'Notably, however, the trash cases generally do not endorse the abandonment rationale in their holdings, weakening abandonment's applicability in the wastewater context.'
- 33 Gray and Gardner, above n 7, 154.
- 34 See generally the discussion by Bennett Moses, above n 13, 654–9.

property rights.³⁵ However, the value of such a philosophical excursus in respect of wastewater is somewhat limited. Competing arguments could easily be made, and in the context of a cause of action being vested in a person for interference with 'our' bodily waste, add little to the debate. Similarly, and whilst we all recognise that there can be no doubt that seeing certain items as property is immoral (such as the obvious chattel slavery), such concerns are not evident here. Again, the critical contextual question is, rather than necessarily preventing or impeding the sewerage company from carrying out the services needed to maintain community confidence in the waste disposal system, what is the enforceability of any rights that an occupier has in waste products flushed down the toilet? Thus the decision by Hulme J in *Edwards*; *Re the Estate of Edwards*³⁶ to allow the applicant a possessory interest in her husband's sperm only answered the access question.

The deceased was her husband. The sperm was removed on her behalf and for her purposes. No-one else in the world has any interest in them. ... it would be open to the Court to conclude that Ms Edwards is entitled to possession of the sperm.³⁷

Following this line of reasoning, public policy would allow the imposition of a statutory restriction against an occupier's otherwise clear entitlement to wastewater. All that we ask is that any restrictions be articulated and made transparent, the public policy values outlined. The property label simply provides an established legal regime to deal with unauthorised or unwarranted interference and importantly may provide a mechanism by which the pricing of water can reflect the input of the people to whom it benefits, such as in community facilities. As we increasingly commodify assets that were once in the public domain, it still remains 'necessary to ask what it is about a particular thing that means it cannot be an object of property, either generally or for particular purposes.' To date, this has not been done in relation to wastewater.

VII CRIMINAL PROCEDURE

The determination of the property question may seem merely an interesting academic conundrum where realisation of financial reward from the product is concerned. The logistical problems involved in determining individual household contribution levels and consequent financial entitlements probably render the prospect of any financial reward remote at best. However, it may assume a different aspect when considered in the criminal justice context or in any context where the state might seek to test wastewater from private premises for evidence gathering purposes, for instance, to test for the presence of illicit drugs. Here the question of whether the contributor to despoiled wastewater has a proprietary interest in it is

³⁵ For an overview of these theories, see MR Cohen, 'Property and Sovereignty' (1927) 13 Cornell Law Quarterly 8.

^{36 (2011) 4} ASTLR 392.

³⁷ Ibid [91].

³⁸ Bennett Moses, above n 13, 659.

likely to be relevant to and perhaps even determinative of the limits of state power in this regard or of the state obligations in performing the sampling.

Hering, writing in the American arena, raised concerns about law enforcement agencies monitoring an individual's drug use via wastewater analysis. 39 Arguably he underestimates the practical and technical difficulties associated with taking samples from specific residences. Whatever technical advances may occur in the future such a task is likely to remain a difficult project for some time. For example, the structure of sewer pipes servicing a residence will determine whether useful sampling can occur and whether the sampling can actually be isolated to any particular residence. There is also the problem of isolating wastewater from one particular residence before it commingles with wastewater from other residences. The instruments involved would need to provide information spanning a useful period of time — a one-off scoop (called a 'grab sample') would yield intelligence only on what happened to be in the water in the seconds of sampling. The number of people who reside in the targeted residence may also affect the intelligence value of the evidence obtained, as would occupant turnover and the number and frequency of visitors to the premises. Wastewater data gathered from a household of 10 people may assist little in the investigation of a single suspect, depending upon the offence under investigation.

It is unclear to what extent difficulties in using wastewater sampling to identify and prosecute offenders may be overcome by deeming provisions in legislation dealing with those offences. For example, in some jurisdictions, illicit drugs legislation deems proscribed drugs found on premises to be in the possession of the occupier of those premises.⁴⁰ Upon proof of the identity of the occupier and the presence of a proscribed substance at the premises, the offence of unlawful possession is made out unless the occupier can establish that he or she had no knowledge of the substance. Future analysis is required on this topic, which is beyond the bounds of this article. Among other things, such research would need to consider established precedent concerning possession of minute quantities of controlled substances.⁴¹ Notwithstanding these unresolved issues, Hall and others have argued that, given the cost, effort and technical difficulties involved in monitoring a single premises (outlined above), it seems unlikely that law enforcement agencies would consider using wastewater analysis to investigate minor offences, such as drug possession.⁴²

On the other hand, law enforcement agencies may consider it worthwhile to attempt to gather intelligence or evidence via wastewater in respect of very serious criminal conduct — conduct that may have widespread harmful consequences. In Australia, Prichard and colleagues have suggested that wastewater analysis may be useful in investigations concerning drug manufacturing (in detecting drug

³⁹ Hering, above n 31.

⁴⁰ See, eg, Misuse of Drugs Act 2001 (Tas) s 3(3); Drugs Misuse Act 1986 (Qld) s 129(1)(c); Drugs, Poisons and Controlled Substances Act 1981 (Vic) s 5.

⁴¹ Williams v The Queen (1978) 140 CLR 591.

⁴² Wayne Hall et al, 'An Analysis of Ethical Issues in Using Wastewater Analysis to Monitor Illicit Drug Use' (2012) 107 Addiction 1767.

precursors), or terrorist-related activities (in detecting chemicals related to bomb making).⁴³

This takes us back to the question, what are the limits of state power in undertaking such sampling? The specific questions in this regard are whether a search warrant would be required for wastewater data to be collected in the first place and/or whether wastewater data could be used to apply for a warrant to conduct a full-scale search of the premises. Whether the occupiers of the premises have a proprietary interest in the wastewater may be relevant in answering these questions. The language here is tentative because, as discussed below, the existence or non-existence of a proprietary interest may not be the sole determinant of the search warrants issue. Other relevant matters include whether search warrants legislation is couched in terms that are adequate to cover the sampling of wastewater beyond the perimeters of private premises and whether the sampling of wastewater is characterised as a search or a seizure or neither. However, the question of a proprietary interest also potentially plays into the characterisation of the sampling. The discussion below demonstrates that Australian laws currently raise more questions than they answer. Perhaps this is a facile conclusion. But if we are nervous about the potential for law enforcement agencies to intrude upon our privacy by monitoring our wastewater, then it is as well to know that this is the state of our law. We can then make policy choices about the desirability and the shape of any law reforms.

The search warrants issue is relatively unproblematic if the police or state officials wish to enter private premises to take samples of waste material. Then they must have a lawful basis and lawful authority to do so, such as would be furnished by the consent⁴⁴ of the owner, a search warrant, or a legislated power.⁴⁵ In their absence, entry onto the premises may constitute a trespass and any evidence obtained during the course of the trespass would be unlawfully obtained and its admissibility in proceedings open to challenge. This challenge would be on the basis of the application of either s 138 of the uniform evidence legislation⁴⁶ (the judicial discretion to exclude improperly or illegally obtained evidence), or the common law discretion to exclude evidence on public policy grounds.⁴⁷ However, if the state authorities collect specimens of wastewater after it has exited private premises, for example from a sewer pipe leading from the premises but on public land, then the question of whether its producer has thereafter retained a proprietary interest in it may be central in establishing what, if anything, is required for its lawful sampling. If the despoiler has no possessory interest in

- 43 Prichard et al, 'Developing a Method for Site-Specific Wastewater Analysis', above n 1.
- 44 If the occupier of premises consents to the sampling that would provide lawful authority for it to occur and thus there would be no need for a warrant.
- 45 As might be provided by environmental protection legislation which authorises officers to collect samples of water from any place for the purpose of the legislation, see, eg, *Environmental Management and Pollution Control Act 1994* (Tas) s 92; *Environmentally Hazardous Chemicals Act 1985* (NSW) s 45(1)(i); *Environmental Protection Act 1970* (Vic) s 55(1); *Environmental Protection Act 1970* (Qld) s 460(1).
- 46 Evidence Act 1995 (Cth) (applies in Federal and ACT court systems); Evidence Act 1995 (NSW); Evidence Act 2001 (Tas); Evidence Act 2008 (Vic); Evidence Act 2004 (Norfolk Island).
- 47 Bunning v Cross (1978) 141 CLR 54.

the wastewater, then to sample the wastewater state authorities may need neither her or his consent nor any authority that would override that consent should it be withheld. If property subsists in the matter sampled then the collecting agency may be in the same position vis à vis its collection as if he or she had entered private premises to do so. That is, state authorities may only be able to obtain samples of the wastewater without the consent of the owner under power of some lawful authority like a search warrant.⁴⁸

But the necessity to obtain a search warrant may not be determined solely by the answer to the question of proprietorship. It may also depend on the scope of Australian search warrants legislation — that is, on whether the location of the sampling falls within the purview of potentially applicable search warrants legislation and on whether in any event the sampling of the wastewater can be characterised as an activity that requires a warrant, that is, as a search or a seizure. In essence, the question is whether search warrants legislation is capable of applying to the sampling of wastewater that has left residential premises. It is of course in the privacy interests of the producers of or contributors to wastewater that, no matter the location where it is collected for testing by criminal investigation agents, that collection be governed by search warrants legislation rather than being entirely uncontrolled.

A Scope of Search Warrants Legislation

The scope of search warrants legislation in terms of the type of locations to which it applies varies across Australian jurisdictions. Some statutory regimes refer to search of 'premises',⁴⁹ which is then defined to include 'a' or 'any' 'place'.⁵⁰ Other regimes refer directly to search of a 'place'.⁵¹ and, on occasion, of any 'receptacle'.⁵² 'Place' may or may not be defined. Where it is, the definitions may be sufficiently

- 48 Legislation that vests the property in sewers, drains and works connected to them in the state bodies responsible for their construction and maintenance, does not necessarily assist law enforcement agencies in this regard. The relevant vesting provisions may not extend to the matter flowing through the sewers and drains. Section 14 of the Sewerage Act 1929 (SA) is a case in point. It provides, '[t]he whole of the undertaking (the works comprising the sewage system) and all the materials and things which at any time are part thereof, are vested in the Corporation, and shall be deemed to be the property of the Corporation, and shall be held and used for the purposes of this Act.' Whether the wastewater passing through the system could be considered to be 'part thereof' is open to debate.
- 49 See Crimes Act 1914 (Cth) s 3E; Law Enforcement (Powers and Responsibilities) Act 2002 (NSW) ss 47(1), 47A, 48; Search Warrants Act 1997 (Tas) s 5.
- 50 Crimes Act 1914 (Cth) s 3C; Search Warrants Act 1997 (Tas) s 3; Law Enforcement (Powers and Responsibilities) Act 2002 (NSW) s 3.
- 51 Police Powers and Responsibilities Act 2000 (Qld) s 150; Crimes Act 1958 (Vic) s 465; Magistrates' Court Act 1989 (Vic) s 78; Criminal Investigation Act 2006 (WA) div 3; Police Administration Act 1979 (NT) s 117.
- 52 Crimes Act 1958 (Vic) s 465.

expansive to extend to locations other than private or occupied locations.⁵³ Accordingly, the search warrants provisions subject to these definitions may well be able to be applied to the collection of wastewater that targets individual premises from any location at all. Where there is no definition of 'place' the legislation may alternatively be read narrowly as only ever being intended to apply to searches of, and seizure from, privately owned or controlled locations. The issue in some statutory regimes may be either muddied or clarified by provisions that authorise the police to search public places without a warrant and seize evidential material, as is the case in Queensland under the Police Powers and Responsibilities Act 2000.⁵⁴ The existence of these provisions may suggest that the search warrants sections of the Act were intended to apply only to non-public locations. In any event, in this jurisdiction, the question of the necessity for a warrant may not depend so much on who has property in the wastewater as on what is the nature of the place from which it is seized. 'Public place' is defined as 'a place to which members of the public have access as of right, whether or not on payment of a fee and whether or not access to the place may be restricted at particular times or for particular purposes'.⁵⁵ This begs the question whether a sewer fits this definition. If the location of the sampling is a public place so defined, then no warrant will be required.

The position in relation to search warrants at common law is unhelpful in determining the necessity for a search warrant because the common law in this context is concerned only with entry onto and search of private premises. Further, the jealousy with which the common law courts protected private premises prompted them to proscribe the issue of search warrants except for the purpose of enabling searches for stolen goods. ⁵⁶ In all other circumstances entry onto and search of private property was impermissible without the consent of the occupier. ⁵⁷ In a unanimous judgment in *George v Rockett*, the full bench of the High Court noted that historically, the justification for these limitations was based on the rights of private property, but that in modern times, the justification has shifted increasingly to the protection of privacy. ⁵⁸ Australian search warrants legislation countenances and authorises state incursions on the right to privacy and the rights of property owners and occupiers well beyond those tolerated by the common law. Nevertheless, it also serves a protective function by subjecting those incursions to independent judicial control. As stated by Callinan and Crennan JJ in *New*

53 See, eg, *Police Administration Act 1979* (NT) s 116(2). See also the Dictionary of the *Police Powers and Responsibilities Act 2000* (Qld) sch 6 which provides that:

place includes-

- (a) premises; and
- (b) vacant land; and
- (c) a vehicle; and
- (d) a place in Queensland waters; and
- (e) a place held under 2 or more titles or owners
- 54 Police Powers and Responsibilities Act 2000 (Qld) s 33.
- 55 Ibid sch 6 (definition of 'public place' para (a)).
- 56 See, eg, Elias v Pasmore [1934] All ER Rep 380.
- 57 George v Rockett (1990) 170 CLR 104, 110, citing Leach v Money (1765) 19 State Tr 1001; 97 ER 1075 and Entick v Carrington (1765) 19 State Tr 1029; 95 ER 807.
- 58 (1990) 170 CLR 104, 110.

South Wales v Corbett, '[a]ll such legislation seeks to balance long established individual rights against the public interest in combating crime.'⁵⁹ In applying such legislation, the orthodoxy is that courts will apply the rule of strictness, whose rationales, according to Kirby J, include:

- (1) The protection of the ordinary quiet and tranquillity of the places in which people live and work and of their possessions as a precious feature of our type of society and the happiness of its people;
- (2) The avoidance of disruption and the occasional violence that can arise in the case of unwarranted or excessive searches and seizures:
- (3) The beneficial control of the agents of the State exerted because of their awareness that they will be held to conformity with strict rules whenever they conduct a search and will require statutory or common law that clearly supports their searches and seizures;
- (4) The incentive that strict rules afford for the maintenance of respect for the basic rights of individuals who become subject to, or affected by, the processes of compulsory search and seizure; and
- (5) The provision in advance to those persons of a warrant signifying, with a high degree of clarity, both the lawful ambit of the search and seizure that may take place and the assurance that an independent office-holder has been persuaded that a search and seizure, within that ambit, would be lawful and has been justified on reasonable grounds.⁶⁰

This means that in judging the lawfulness of police incursions on citizens' common law and fundamental human rights, courts will adopt a strict statutory interpretive stance to ensure that the police conduct does not go beyond what is authorised by the legislation and that it complies with any legislated limitations and requirements. These principles also speak to the desirability of applying search warrants legislation to all seizures of wastewater that target individual homes and therefore individual privacy interests wherever they occur. After all, such samples are capable of revealing more about the occupants than their engagement in criminal conduct.

Because search warrants legislation engages the right to privacy, in defining its scope regard should be had to interpretive instruments and principles that reference human rights norms. In those Australian jurisdictions with human rights statutes,⁶¹ search warrants legislation must be interpreted as far as it is possible to do so in a way that is compatible with human rights.⁶² In those jurisdictions without human rights enactments, a similar interpretive approach may be achieved through application of the principle of consistency. This principle is that

^{59 (2007) 230} CLR 606, 630 [96].

⁶⁰ Ibid 612 [22].

⁶¹ Only two Australian jurisdictions to date have enacted human rights legislation: the ACT (*Human Rights Act 2004*) ('ACT HRA') and Victoria (*Charter of Human Rights and Responsibilities Act 2006*) ('Victorian Charter').

⁶² Victorian Charter s 32; ACT HRA s 30.

where there is ambiguity or uncertainty in legislation, an interpretation should be favoured that complies with international human rights principles.⁶³ While there is some uncertainty as to when precisely this principle applies, and what level and type of ambiguity is required to trigger its operation, there is authority that takes an expansive approach in this regard.⁶⁴ Such an approach would justify the application of this principle in cases of ambiguity like that considered here. Its application or the application (where relevant) of the interpretive mandate of Australian human rights enactments, may justify giving a broad scope to search warrants statutes by reading 'premises' or 'place' broadly so as to protect an individual's right to privacy by imposing the necessity to obtain a warrant wherever sampling of wastewater occurs that targets individual private premises.

B Search and Seizure and the Right to Privacy

The applicability of search warrants legislation may also depend on whether what is to occur constitutes a search or a seizure. Further, in the ACT and Victoria, the lawfulness of wastewater samplers' conduct may be judged by whether there has been a breach of the right to privacy.⁶⁵ The protection provided by the right to privacy extends beyond the prevention of trespassory interference with proprietary rights.⁶⁶ Human rights jurisprudence has judged both the scope of the right to privacy and whether particular conduct constitutes a 'search' according to whether there is, in the circumstances, 'a reasonable expectation of privacy'.⁶⁷ The collection of wastewater that has left private premises presents a bit of a poser in this regard. In the absence of definitive Australian legislation or decisional law, it is susceptible to a variety of conflicting analogies. For example, it might be analogised with the interception of telecommunications where breach of the right

- 63 For more detailed consideration of this principle see Jeremy Gans et al, *Criminal Process and Human Rights* (Federation Press, 2007) 26–30.
- 64 See, eg, Polites v Commonwealth (1945) 70 CLR 60; Minister for Foreign Affairs v Magno (1992) 37 FCR 298; Barry R Liggins Pty Ltd v Comptroller-General of Customs (1991) 32 FCR 112; Al-Kateb v Godwin (2004) 219 CLR 562, 589 [63] (McHugh J); Minister for Immigration and Ethnic Affairs v Teoh (1995) 183 CLR 273, 287 (Mason CJ and Deane J); Royal Women's Hospital v Medical Practitioners Board of Victoria (2006) 15 VR 22, 37–40 [68]–[80]; Kruger v Commonwealth (1997) 190 CLR 1, 71 (Dawson J); Northern Territory v GPAO (1999) 196 CLR 553, 642 [232] (Kirby J).
- 65 The Australian Capital Territory enacted a right to privacy in s 12 of the ACT HRA and Victoria in s 13 of the Victorian Charter.
- 66 Gans et al, above n 63, 301, citing R v Duarte [1990] 1 SCR 30; Katz v United States, 389 US 347 (1967) ('Katz'); Malone v United Kingdom (1985) 7 EHRR 14; Bernstein v Bester [1996] 2 SA 751, [75] (Constitutional Court).
- 67 See in relation to the engagement of the right to privacy in art 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms (more commonly known as the European Convention on Human Rights): Halford v United Kingdom (1997) 24 EHRR 523, 543 [44]–[45]; PG v United Kingdom (2008) 46 EHRR 51, 1288–89 [57]; see in relation to Canada Act 1982 (UK) c 11, sch B s 8 ('Constitution Act 1982'): Hunter v Southam [1984] 2 SCR 145; R v Colarusso [1994] 1 SCR 20, 60; see in relation to United States Constitution amend IV: Katz, 389 US 341, 361 (1967); Hudson v Palmer, 468 US 517, 525 (1984). In contrast, in relation to s 21 of the New Zealand Bill of Rights Act 1990 (NZ), the reasonable expectation of privacy has been applied to the reasonableness of searches rather than their existence: R v Jefferies [1994] 1 NZLR 290, 301; R v Fraser [1997] 2 NZLR 442, 450; see also Scott L Optican, 'What is a "Search" under s 21 of the New Zealand Bill of Rights Act 1990? An Analysis, Critique and Tripartite Approach' [2001] (3) New Zealand Law Review 239.

to privacy has been found to exist,⁶⁸ or it might be analogised with search of garbage disposed at the curbside for collection, where it has not.⁶⁹ Then there is the raft of United States cases concerning the testing of wastewater from industrial sites. In these cases, the United States courts have usually held that the testing does not constitute a search there being no expectation of privacy in the wastewater in question.⁷⁰ Hering argues that the high level of state regulation of commercial and industrial facilities and industrial waste disposal necessarily distinguishes the expectation of privacy in this environment from that in domestic settings. This makes the application of this line of authority to sampling of residential wastewater problematic.⁷¹ Nevertheless, these differing lines of authority show that the 'reasonable expectation of privacy test' presently leaves uncertain the answer to the question whether wastewater sampling targeting particular premises but conducted beyond the perimeters of those premises constitutes a search.

A close analogy for Australian courts considering the legality of warrantless, nonstatutorily authorised testing of wastewater after it has exited private premises is the collection of discarded cigarette butts for the purpose of obtaining DNA evidence. This engages the question of abandonment considered above. It is also relevant to the scope of search warrants legislation. This relevance derives from the questions it answers about the application of forensic procedures legislation. This issue was the focus of argument in the New South Wales Supreme Court case, R v White, 72 and in the New South Wales Court of Criminal Appeal case, R v Kane.⁷³ In both cases, it was held that forensic procedures legislation applies only to procedures carried out on the person of an individual and not to forensic evidence collected from items discarded by that person.⁷⁴ By extension, this may mean that forensic procedures legislation has nothing to say about the collection of wastewater. Importantly, the interpretive approach taken in these cases may arguably support a narrow reading of 'search', 'premises' and 'place' in search warrants legislation. Such an approach would confine the operation of this legislation, where the taking of residential wastewater samples are concerned, to those obtained within residential boundaries.

- 68 See Halford v United Kingdom (1997) 24 EHRR 523; A v France (1993) 17 EHRR 462.
- 69 California v Greenwood, 486 US 35 (1988); R v Patrick [2009] 1 SCR 579.
- 70 Riverdale Mills Corp v Pimpare, 392 F 3d 55 (1st cir, 2004); United States v Spain, 515 F Supp 2d 860 (ND, 2007); United States v Hadjuk, 396 F Supp 2d 1216 (D Colo, 2005) (agreeing with the Riverdale Mills formulation of principle but finding a search on the facts).
- 71 Hering, above n 31, 748.
- 72 [2005] NSWSC 60 (15 February 2005).
- 73 (2004) 144 A Crim R 496.
- 74 The majority of Australian jurisdictions have adopted the statutory model for forensic procedures of the Commonwealth Crimes Act 1914, pt ID, which deals with forensic procedures as procedures carried out on the person of a suspect. See Crimes (Forensic Procedures) Act 2000 (NSW); Criminal Law (Forensic Procedures) Act 2007 (SA); Forensic Procedures Act 2000 (Tas); Crimes Act 1958 (Vic) s 464; Criminal Investigation Act 2006 (WA) ss 91–104; Crimes (Forensic Procedures) Act 2000 (ACT). Queensland and the Northern Territory have not followed the Commonwealth model but their statutory regimes still define forensic procedures as procedures performed on a person: Police Powers and Responsibilities Act 2000 (Qld) sch 6 ('Dictionary') (definition of 'forensic procedure'); Police Administration Act (NT) ss 4(1) (definition of 'forensic procedure'), 145, 145A–B, 146.

While Hering argues that wastewater sampling constitutes a search because it invades a homeowner's reasonable expectations of privacy, it may perhaps be more proximate to a seizure of property. In relation to this issue however, the question of a proprietary interest re-emerges as centrally significant. In *Grayson v Taylor* the New Zealand Court of Appeal held that a search is an examination of a person or property while a seizure is a taking of that which is discovered. Similarly, in *Westco Lagan Ltd v Attorney-General*, McGechan J of the New Zealand High Court stated that 'seizure' usually 'connotes the physical removal or assumption of physical control over a tangible item, whether permanently or temporarily.' A similar approach has been taken by the Canadian Courts. The Full Court of the Australian Federal Court noted in *Hart v Commissioner of Australian Federal Police*, that the ordinary meaning of 'seizure' is the 'confiscation or forcible taking possession (of land or goods)'. In the context of the execution of a search warrant the Court held:

The content of the term 'seizure' is to be understood in light of its purpose which is to enable use of the things seized in the investigation of a suspected offence and at any subsequent trial arising out of the investigation. Seizure under a search warrant therefore involves a taking of possession that is temporary and for a specific purpose.⁷⁹

The notion of 'seizure' therefore appears to involve some kind of taking of a thing as opposed to examining or looking for it, which it what is meant by 'search'. The conduct comprised in sampling wastewater is arguably a seizure because it entails taking something. The problem with characterising wastewater sampling as a seizure however is that, unlike 'search', 'seizure' is based on interference with a possessory interest in property.⁸⁰ This means that unless a proprietary interest can be claimed in wastewater, its sampling will not be a seizure within the purview of search warrants legislation. In contrast, the interpretive approach in international human rights jurisprudence extends the concept of search to any investigative technique that encroaches upon or diminishes a person's reasonable expectation of privacy. But there is no certainty about the results of the application of that principle to the sampling of wastewater. As indicated earlier we cannot predict on the basis of current decisional law whether wastewater sampling would be judged as diminishing reasonable expectations of privacy in such a way as to engage search warrants legislation. The analysis here reveals then, that while the answer to the property question is not the sole basis on which the necessity to obtain a search warrant to sample wastewater might depend, it could contribute

^{75 [1997] 1} NZLR 399, 406.

^{76 [2001] 1} NZLR 40, 53 [57] ('Westco').

⁷⁷ See, eg, *R v Dyment* [1988] 2 SCR 417; *R v Colarusso* [1994] 1 SCR 20, 43–4; *R v Wijesinha* [1995] 3 SCR 422 (affirmed on appeal); *R v Grossman*, Ruling of Romilly J on the voir dire in the Supreme Court of British Colombia, January 6–8, 12, 1998, (1998 CanLII 6768 (BC SC)).

^{78 (2002) 124} FCR 384, [81]–[82].

⁷⁹ Ibid [82].

⁸⁰ Solicitor General v Bujak [2009] 1 NZLR 185, 199 [46], citing R v Bujak [2007] NZCA 347, [63]; Westco [2001] NZLR 40, 53–4 [57]; Texas v Brown, 460 US 730, 747 (1983); Soldal v Cook County, 506 US 56 (1992).

to the resolution of that issue. The discussion here also suggests that the current law potentially poses few inhibitions upon wastewater sampling that targets private premises if that sampling occurs beyond the perimeters of those premises. Accordingly, it also reveals the uncertainty of the law and the rights of individual citizens in this context.

C Implications of a Requirement to Obtain a Warrant

Generally an applicant for a search warrant must establish that there are reasonable grounds for suspecting or, on some statutory formulations, believing that there is or will be within 72 hours evidentiary material (a thing in relation to an offence) at specified premises.⁸¹ The applicant must provide evidence establishing the basis of the suspicion or belief. Presumably, if these conditions can be met to obtain a warrant to sample wastewater, investigators could also justify a search of the premises proper. This begs the question why the police would bother to obtain a warrant to sample wastewater if they could obtain authority anyway to search the entire premises. The advantage of wastewater sampling is that, if conducted at different points in time and if conducted covertly it may detect patterns in the presence of evidentiary substances like drugs, precursors or chemicals used in terrorist activity where an ordinary search of the premises might produce nil results — the evidence having already been consumed or disposed of, sometimes into the sewer. Covert wastewater sampling conducted on premises at different points in time may frustrate residents' attempts to adjust their behaviour to avoid its detection. In this way it could operate in a similar fashion to telecommunications interceptions.

However two aspects of the standard search warrant procedure undermine the usefulness of sampling wastewater pursuant to a warrant. First, the occupier of the premises is entitled to be apprised of the warrant before it is executed and to be present during its execution. Second, standard warrants generally do not authorise continuous or on-going searches. Thus, standard warrants would deprive the sampling process of those very features that lend it most potential as an investigative instrument — its covert and continuous application. Both deficiencies may be overcome by legislation that authorises the use of covert warrants. Covert search warrants may enable investigators to execute the warrant without the knowledge of the occupiers of premises and to refrain from giving notice to the occupiers of the execution of the warrant for months, years

⁸¹ See, eg, Police Powers and Responsibilities Act 2000 (Qld) s 151; Search Warrants Act 1997 (Tas) s 5; Law Enforcement Powers and Responsibilities Act 2002 (NSW) s 47.

⁸² See, eg, Law Enforcement (Powers and Responsibilities) Act 2002 (NSW) s 67(4); Search Warrants Act 1997 (Tas) ss 13, 19.

⁸³ See, eg, Law Enforcement (Powers and Responsibilities Act) 2002 (NSW) ss 46A, 46C; Police Powers and Responsibilities Act 2000 (Qld) ch 9; Australian Security Intelligence Organisation Act 1979 (Cth) s 25(4)(e); Terrorism (Community Protection) Act 2003 (Vic) pt 2; Terrorism (Police Powers) Act 2002 (NSW) pt 3; Terrorism (Extraordinary Powers) Act 2005 (WA) pt 3; Terrorism (Emergency Powers) Act 2003 (NT) pt 3A.

⁸⁴ Law Enforcement (Powers and Responsibilities Act) 2002 (NSW) s 67A.

or even at all.⁸⁵ Some statutory regimes also provide for repeated execution of the warrant during its duration.⁸⁶ While overcoming the problems the standard search warrant regimes pose to wastewater sampling, covert warrants also expose the fragility of citizens' privacy rights in the face of new investigative techniques.

D The Exclusion of Evidence Obtained without a Warrant

As noted earlier, if a warrant is required to sample wastewater from residential premises without the consent of the occupiers and one is not obtained, the sampling may constitute a trespass to property and any evidence procured may be excluded as being unlawfully obtained. Its exclusion is discretionary however. In deciding whether or not to exercise the discretion the court will weigh the desirability of admitting the evidence against the desirability of excluding it. This assessment will involve consideration of, inter alia, the nature of the unlawfulness involved, the gravity of the impropriety, whether that impropriety contravened a right recognised in the International Covenant on Civil and Political Rights (in this case possibly the right to privacy) and the probative value of the evidence.⁸⁷ The discretionary nature of this exclusionary ground means that it provides limited protection of property and privacy rights. Research has shown that the discretion is rarely exercised in favour of defendants and appeals against the admission of the evidence infrequently succeed.⁸⁸ Canadian and American research has also shown that exclusionary rules of evidence have little impact on unlawful police conduct, that they can, in fact, reinforce law enforcement agents' proclivities to treat legal restrictions on their powers as flexible and manipulable.⁸⁹ Problematic and flimsy though the protection provided by the discretion may be, it can only give that protection to contributors to wastewater if they have a property or privacy interest in relation to it.

E Use of Sampled Wastewater to Obtain a Warrant

If a warrant is not required to undertake wastewater sampling, then depending upon the accuracy of the findings and the extent to which they can be pinpointed to one premises, any findings from that sampling could be used as a basis for obtaining a warrant to search the entire premises.

- 85 As is the case under the Queensland, Victorian, Western Australian and Northern Territory covert warrant regimes.
- 86 See, eg, Police Powers and Responsibilities Act 2000 (Qld) s 219(1)(a).
- 87 Section 138(3) of the uniform Evidence Acts; Bunning v Cross (1978) 141 CLR 54, 78–80 (Stephen and Aickin JJ). For detailed consideration of this discretion, see Jeremy Gans and Andrew Palmer, Uniform Evidence (Oxford University Press, 2010) 325–49; Jill Anderson, Neil Williams and Louise Clegg, The New Law of Evidence: Annotation and Commentary on the Uniform Evidence Acts (LexisNexis Butterworths, 2nd ed, 2009) 662–86.
- 88 Jill Hunter, Camille Cameron and Terese Henning, *Litigation II: Evidence and Criminal Process* (LexisNexis Butterworths, 7th ed, 2005) 484.
- 89 Gans et al, above n 63, 200 referring also to the overview of Canadian and United States' research provided by James Stribopoulos, 'In Search of Dialogue: The Supreme Court Police Powers and the *Charter*' (2005) 31 *Queen's Law Journal* 1, 49–54.

However, an interesting question prompted by the issues considered here is whether state authorities might rely on illegally sampled wastewater (for example, sampling conducted without a warrant if one is needed) to obtain a warrant to conduct a full-scale search of the targeted premises and then adduce in criminal proceedings the evidence obtained pursuant to that warrant. Is the warrant unlawfully issued in these circumstances? There is no Australian authority directly on this point. However, the following principles are applicable. It appears that the warrant will not have been invalidly issued if the police do not rely upon evidence obtained from the illegal sampling to obtain the warrant. 90 Further, the limited duty of disclosure imposed on warrant seekers means that the failure to disclose the unlawful conduct will not vitiate the warrant unless there has been fraud or misrepresentation.⁹¹ But there is comparative authority that an applicant for a warrant cannot rely upon unlawfully obtained information in order to obtain a warrant. 92 This accords with the statement of Beaumont and Whitlam JJ in Lego Australia Pty Ltd v Paraggio that the 'role of the court in judicial review is to supervise the activities of the Executive so as to ensure that administrative action takes place in accordance with the rule of law.'93 In addition, where evidence is lawfully obtained because of earlier unlawful conduct or earlier unlawfully obtained evidence, the later evidence would be susceptible to challenge under s 138 of the uniform Evidence Acts. The earlier illegality would taint the later evidence even though it may have been lawfully obtained. For example, in R (Cth) v Petroulias [No 8] Johnson J stated,

[a] connection between the improper conduct and the obtaining of the evidence may be indirect. There could be a sufficient connection found between a misstatement in an application or affidavit in support of a warrant and the evidence obtained as a result of the issuing of the warrant so as to engage s 138(1) ...⁹⁴

It has been noted that this means that '[a]n illegality at the root might poison all the fruit of a very large tree where the illegality leads to the discovery of information or evidence on which the investigation and the prosecution is then founded.'95

VIII CONCLUSION

A proprietary analysis of ownership of wastewater yields more questions than answers. The notions of ownership, control, usage, and abandonment sit uneasily

- 90 Tasmania v Crane (2004) 148 A Crim R 346.
- 91 Lego Australia Pty Ltd v Paraggio (1994) 52 FCR 542, 555.
- 92 Silverthorne Lumber v United States, 251 US 385 (1920); Wong Sun v United States, 371 US 471 (1963) ('Wong').
- 93 (1994) 52 FCR 542, 555.
- 94 (2007) 175 A Crim R 417, 425 [25]. See also R v Shaheed [2002] 2 NZLR 377; Wong, 371 US 471 (1963).
- 95 Anderson, Williams and Clegg, above n 87, 666.

with wastewater. The defecator or urinator is practically unlikely to claim ownership before disposal, and less likely after disposal. But as governments increasingly profit from the sale and disposal of wastewater, community expectations of being able to participate in the rewards of this sale will undoubtedly be heard by our political masters. It is unlikely to be enough that the service or good emanating out of wastewater is occasionally provided to community facilities, or that it serves the ecological cycle of providing irrigation to primary producers in this country. As governments and quasi-government agencies impose a charge on the provision of the service to the residential homeowner, with these charges compounded when the end product is sold to large-scale irrigators, the citizen of the state will, at some point, ask to share in the benefits.

However, at a more fundamental and practical level in the present era, is the question of what use can be made of wastewater sampling in the detection of criminal activity. We know the police have the capacity to undertake this sampling, and international experience informs us that it is occurring, but can it be legally used in our present criminal processes? The answer to this may well lie in how we view our proprietary rights over wastewater. Analogous thinking from the litigation surrounding the use of discarded rubbish, cigarettes and like items informs this debate, but fails to resolve it. Increasingly, this argument centres not on property, but on privacy, an idea that inherently engages with the values of each of us, for which there is no necessarily logical or philosophically undeniable position. Law, with its reliance on stare decisis and precedent may occasionally be criticised as the science of jurisprudence in hindsight. But this is one area where we need to examine our approach normatively; the problem is too important and too real to leave to the incremental evolution of the common law. The legislature must ensure that the balance between the private and proprietary rights and interests of individuals and the public trust⁹⁶ needed for underlying fairness within criminal justice processes must be valued and appropriately balanced. In doing this, parliaments must articulate the values that they regard as important: property, privacy, detection of crime, and how it is to value or weigh each of these criteria. By so doing, the electors will be comfortable that their chosen representatives have at least engaged in a discussion and process that is organically built upon the concerns of the community. Through this mechanism, the abuses or misuses of wastewater in the investigation and conviction of those who breach the positivist rules of our criminal law will be minimised. We cannot ask for anything more.

⁹⁶ While beyond this article, the public trust doctrine may be an avenue in which the balance between the private and public could be attained. See generally, Karen Oehme, 'Judicial Expansion of the Public Trust Doctrine: Creating a Right of Access to Florida's Beaches' (1987) 3 Journal of Land Use and Environmental Law 75.

THE CRIMINALISATION OF TERRORIST FINANCING IN AUSTRALIA

NICOLA MCGARRITY*

I INTRODUCTION

The commission of a terrorist act does not require a large amount of money. The devastating 9/11 terrorist attacks on New York and Washington are estimated to have cost Al Qaeda somewhere in the vicinity of only US\$400–500 000.¹ Nevertheless, even before 9/11, the international community identified the blocking of terrorist funding as being of critical importance to combating domestic and international terrorism.² The international counter-terrorism financing regime can best be described as a 'patchwork' of international instruments.³ Whilst each of these instruments requires states to criminalise the financing of terrorism, there are important points of distinction in the detail. The scope of the offences under each of the instruments is slightly different; some offences are limited to funding for the purpose of facilitating or committing a terrorist act and others extend to the provision of funds, for any purpose, to an individual terrorist or terrorist organisation. The instruments also set out different mechanisms for identifying terrorist organisations and individual terrorists and allocate the responsibility for monitoring compliance to a range of entities.

This article will start by providing an overview of the international counterterrorism financing regime (Part II). However, its primary purpose is to examine the manner in which the relevant international instruments have been implemented into Australian law.⁴ There is a considerable body of academic scholarship about Australia's anti-terrorism laws (which number 54 in total).⁵

- * Lecturer, Australian Research Council Laureate Fellowship Project, 'Anti-Terror Laws and the Democratic Challenge' (Chief Investigator: Professor George Williams), Gilbert + Tobin Centre of Public Law, University of New South Wales. I thank Professor George Williams and the anonymous referee for their valuable comments.
- National Commission on Terrorist Attacks Upon the United States, The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States (July 2004) 172.
- 2 This article is written by a public lawyer, not a political scientist or security expert. Therefore, the vexed question of whether a focus on terrorist financing, modelled on the approach used to deal with money laundering, is effective in combating terrorism is beyond the scope of this article. For a discussion of these issues, see, eg, Alyssa Phillips, 'Terrorist Financing Laws Won't Wash: It Ain't Money Laundering' (2004) 23 University of Queensland Law Journal 81; John D G Waszak, 'The Obstacles to Suppressing Radical Islamic Terrorist Financing' (2004) 36 Case Western Reserve Journal of International Law 673; Sener Dalyan, 'Combating the Financing of Terrorism: Rethinking Strategies for Success' (2008) 1(1) Defence Against Terrorism Review 137.
- 3 Mark Pieth, 'Criminalizing the Financing of Terrorism' (2006) 4 Journal of International Criminal Justice 1074, 1079.
- 4 As a member state of the United Nations, Australia is obliged to implement United Nations Security Council resolutions adopted under ch VII of the *Charter of the United Nations* into domestic law. See arts 39 and 48. It is also required to implement international conventions that it has ratified.
- 5 George Williams, 'A Decade of Australian Anti-Terror Laws' 35 Melbourne University Law Review 1136, 1144.