



# TAPPING INTO UNCERTAINTY

## RURAL GROUNDWATER LICENCE DISPUTES

A growing number of disputes about the grant of groundwater licences by rural water authorities has illuminated the increasing legal complexities of an erstwhile simple procedure. **By Robert Sadler**

The *Water Act* 1989 (Vic) vests the use, flow and control of water in the Crown.<sup>1</sup> Landowners have an entitlement to use water from bores and waterways for domestic and stock purposes. Other uses of groundwater are required to be authorised or licensed. A licence is required to construct a bore and a further licence is required to extract groundwater for other than domestic or stock purposes from that bore.

### Licence processing

An applicant for a groundwater licence<sup>2</sup> (more often than not coupled with an application for a works licence to construct a bore) lodges a written application with the relevant water authority. The authority reviews the application and, although under no express statutory obligation to do so,<sup>3</sup> commonly requires the applicant to advertise at least the bore construction application in local newspapers. It receives “submissions” in response to the

advertisement and sometimes holds a public meeting. The authority then reviews the application and decides to grant it, refuse it or ask the applicant to supply more information. If more information is sought this is usually a relatively expensive hydrogeological assessment. Once armed with that assessment the authority undertakes its own review. It may then ask for a “pump test” to determine the likely consequences of the extraction. Pump tests should be undertaken in accordance with Australian Standard AS 2368-1999<sup>4</sup> and are often expensive. By this stage the applicant has usually spent a considerable sum: for the application fee, a hydrogeological report, the sinking of a bore and a pump test. If the application is refused the applicant is often aggrieved. Conversely, if the application succeeds, local farmers commonly argue, given the lack of certainty in hydrogeology, that there is a risk that their preexisting licence entitlements will be impaired.

### VCAT review

The unsuccessful applicant, or any person “whose interests are affected”, may apply to VCAT within 28 days to review the decision.<sup>5</sup> Applications for extensions of time,<sup>6</sup> especially by persons other than the applicant for the licence, are not easily achieved.<sup>7</sup> Applications to review a decision to grant or not to grant a groundwater licence are heard and determined in VCAT’s Planning and Environment List. They involve the VCAT exercising its review jurisdiction<sup>8</sup> and standing in the place of the water authority to remake the decision afresh. Accordingly, grounds of review that state that the water authority “failed to have proper regard to” a particular factor are meaningless. Grounds of review should be directed at why the water authority should or should not have granted the licence, rather than how it went wrong in the decision-making process.

## Statutory controls

The *Water Act* 1989 regulates the process of applying for a licence to extract groundwater and identifies those considerations the authority must have regard to in reaching its decision on an application, including “any other matter that the Minister thinks fit to have regard to” (s53(e)). The Minister has delegated these decision-making powers to the various water authorities. By reason of s53, a number of important matters mentioned in paragraphs (b) to (m) of s40(1) must be considered. Of regular relevance are the existing and projected availability of water in the area; the permissible consumptive volume for the area; any adverse effect that the allocation or use of water under the entitlement is likely to have on existing authorised uses of water; or on a waterway or an aquifer; or on the drainage regime; any water to which the applicant is already entitled; government policies concerning the preferred allocation or use of water resources; and the needs of other potential applicants.

perhaps open to assess how confidently it is relied on.

- Monitoring, or at least metering, should be used as a check on, rather than a substitute for, a justifiable decision to grant a licence in the first place.<sup>13</sup>

According to the tribunal in *Leonard*, a licence is an “[authorisation of] the quantities to be extracted from a bore in accordance with s56 of the Act” (at [11]). It confers a right to extract a volume. The water authority had established a policy to issue provisional licences, termed “zero volume” licences “to give those people detected without licences in overcommitted Groundwater Supply Protection Areas a period of time to trade, to correct the unauthorised use of water”. These zero licences arose from the Authority’s need to address those groundwater users who did not know they required a licence (which is a not uncommon circumstance where farmers take over farms from their parents) and had been using groundwater for historically long periods. The authority felt that a mechanism

of granting a licence whilst others indicate against granting a licence. In those circumstances it is necessary to weigh things up and to evaluate the importance of the various considerations. It is certainly not a situation where every consideration has to be in favour before a licence is granted, nor is it true that every consideration has to be adverse before a licence is refused. Nevertheless the grant of a licence must become unlikely in circumstances where a consideration, or several considerations, are judged to be both relevant and important where they indicate against the grant of the licence.”

Groundwater licence applications often involve making a decision in uncertain circumstances. The tribunal noted that “[t]his is a field where uncertainty is common” and that “hydrogeology is a complex, difficult and inexact science” (at [48]). The tribunal concluded that “[s]ome parameters are more ascertainable than others. The hydraulic parameters of an aquifer, its hydraulic conductivity, its thickness and even its storage

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## Legal considerations

The recent VCAT decisions in *Leonard v Southern Rural Water*<sup>9</sup> and *Castle v Southern Rural Water*<sup>10</sup> have established at least the following propositions:

- A licence is a right to draw water, not a right to buy water on the water market.
- The authority must take a cautious approach in assessing impacts but that does not mean that a licence should never be issued.
- The authority must be able to achieve a high (or at least reasonable) degree of confidence in groundwater tests and subsequent analysis of longer term groundwater behaviour before it issues the licence.<sup>11</sup>
- “Rules of thumb” or assumptions and estimates used as initial indicators are not a sufficient substitute for proper data and proper evidence.<sup>12</sup>
- The criteria in s40(1)(b)–(m) are not ranked in order of importance and the relative importance of each criterion may vary from case to case.
- The decision maker must have regard to the gazetted “permissible consumptive volume” (PCV – see discussion below), but if the authority entertains serious concerns about the accuracy of this figure it is

was needed to arm the zero licence holder to acquire a water right if such a right became available for trade. VCAT found that a zero volume licence was a “charade” (at [56]) and “did not appear to have any statutory basis” (at [41]). It concluded that such a licence was “a sham and had no legitimacy” (at [42]). This conclusion is undoubtedly correct.

*Castle* involved a challenge by a third party to the grant of a groundwater licence. *Castle* argued that the water authority, in deciding to grant the licence, had inadequate information before it to satisfy itself as to those matters about which it was required to be satisfied before it granted a licence. VCAT agreed. The decision is important in clarifying the process required by law in assessing an application for a groundwater licence.

The tribunal considered (at [45]–[46]) how the various criteria within s40(1)(b)–(m) work together, and concluded that:

“[The list] does not indicate their ranking in order of importance. In any particular case some of these considerations may be relevant whilst others are not. Furthermore, some may be relevant but of little importance whilst others may be of considerable importance. Furthermore, the relative importance of various considerations may vary from case to case. . . . It may be that, in a particular case, some of the considerations weigh in favour

capacity may be relatively ascertainable. Human factors such as when, where, how and to what extent groundwater is extracted from an aquifer may also be ascertainable. There are other influences such as rainfall, subsequent aquifer recharge and long term climate variations that are beyond human control, measurement or prediction and yet are relevant influences on the extent and usability of a groundwater resource” (at [49]). Lack of certainty as to those parameters that should be certain is more likely to result in a need to firm up data and interpretation. It concluded that:

“The level of uncertainty in relation to fundamental hydrogeological parameters requires a cautious approach until sufficient information is available to make a reasonable and informed assessment of aquifer behaviour. That approach is indicated because of the difficulties of hydrogeological assessment but it does not mean that decisions should never be made. That is clearly not the intention of the legislation.” (at [51]–[52])

*Castle* is authority for the proposition that hydrogeological uncertainty does not necessarily mean a licence should not be granted.<sup>14</sup> Rather, the tribunal said:

“The answer should not always be ‘no’ because of some degree of uncertainty; but equally the answer should not be ‘yes’ based



on mere guess work or hoping for the best or an attitude of let's give it a try and see what happens. On the contrary the inherent uncertainties must be borne in mind as indicators of caution. The degree of uncertainty will vary from case to case. The need for good, relevant and meaningful data is obvious; and such data should be obtained as appropriate and where possible. The assessment and evaluation of such data, and the forming of decisions in relation to it, calls for good judgment based on knowledge and experience... The obtaining of relevant data will often require the carrying out of investigations and the conduct of testing. This implies proper reliable testing. It does not mean scanty, haphazard, careless, shallow, irrelevant or merely indicative testing" (AT [52]-[54]).

In this context, the tribunal did not accept that the pumping test that had been carried out was adequate, and further – and importantly for hydrogeologists – it criticised the slavish application of the Thies solution (a calculation commonly used to determine the likely radius of influence during water extraction). The tribunal concluded: "If we cannot have a high degree of confidence in the test and subsequent analysis of longer term groundwater behaviour (or even a reasonable degree of confidence), is it appropriate to direct the issue of the licence? Our answer is no" (at [115]).

Importantly, the tribunal also rejected the common practice of hydrogeologists in supporting an application in circumstances where a safeguard is imposed that allows the water authority, by way of monitoring conditions, to deny further extraction if it becomes aware that the actual extraction is having undesirable effects.

After examining the terms of conditions in a pro forma licence that the authority intended to issue, the tribunal stated that "the authority appears as if it might be attempting to grant itself regulatory powers that the Act does not

afford it. If so, such conditions would appear to be, prima facie, invalid" (at [96]). It also criticised the practice of an authority granting a licence with as yet unformulated or finalised conditions, stating that in the absence of conditions there was no valid decision (at [97]).

### Permissible consumptive volume

Extraction caps, called "permissible consumptive volumes" (PCVs), have been placed on groundwater extraction in defined "groundwater management areas". A PCV is a predetermined and gazetted sustainable groundwater yield from an area. PCVs are used for setting groundwater pumping limits. The science underpinning PCVs is frequently the subject of criticism. The Act requires that the PCV for the relevant groundwater management area be taken into account in deciding whether or not to grant a groundwater licence.<sup>15</sup>

The applicant in *Leonard* sought to undermine the scientific integrity of the relevant PCV.<sup>16</sup> The tribunal concluded that it was required to have regard to the PCV and was not in a position to determine its scientific integrity (at [70]-[75]). In *Castle* the tribunal found that it was not open to it to question the PCV itself, although "it is perhaps open to us to assess how confidently we are prepared to rely upon it in considering this licence application" (at [66]). Based on this logic, a consideration of the PCV is a mandatory criterion. However, it is one of a number of considerations, and if the water authority or VCAT is persuaded that its accuracy is open to doubt a lesser weight can be placed on it. In these circumstances compelling evidence about the availability of groundwater in the area will necessarily be required. This conclusion is consistent with known hydrogeology which accepts that there are doubts about the accuracy of various PCVs. However, it is inconsistent with what a PCV at

law represents – which, insofar as relevant, is a volumetric maximum of water that, according to s22A of the *Water Act*, "must not" be exceeded. This is an absolute statutory prohibition. The better view is that a licence may not be granted which authorises an extraction greater than the PCV, and the PCV is a relevant criterion in assessing applications which, if granted, would involve extraction at a level below the PCV. A statutory prohibition is perhaps not the best control mechanism in circumstances where it is accepted that the data on which the PCVs are based is suboptimal. Indeed, a review by the Department of Primary Industries in 2004 of PCVs in 35 Groundwater Management Areas recognised that in every case where a PCV had been reviewed the reviewer had given the review assessment the lowest "degree of confidence" possible.<sup>17</sup> The preferred solution is to adopt the approach taken in *Castle*. ●

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1. See ss7 and 8 *Water Act* 1989; and RJ Sadler, "Wanted – water: rights of access to water" (2003) 77(3) *LIJ* 43.
2. That is, a licence to take and use groundwater under s51(1)(b) *Water Act* 1989.
3. Section 49 *Water Act*.
4. See *Castle v Southern Rural Water* [2008] VCAT 2440.
5. See s64(1) *Water Act* 1989. See also s5 *Victorian Civil and Administrative Tribunal Act* 1998 (*VCAT Act*). See also *Paul v Murray Goulburn Rural Water Corporation* [2009] VCAT 920.
6. Which are made under s126 *VCAT Act*.
7. See e.g. *Norton v Southern Rural Water* [2007] VCAT 787.
8. See s42 *VCAT Act*.
9. [2007] VCAT 1562.
10. Note 4 above.
11. Note 4 above, at [115].
12. Note 4 above, at [118].
13. Note 4 above, at [120].
14. *Cox & Ors v Southern Rural Water Authority* [2009] VCAT 1001.
15. See ss53(b), 40(1)(b)(a) *Water Act*.
16. An approach also taken in *Niebieski Zamek v SRW* [2001] VCAT 822.
17. Department of Primary Industries, *Audit of Permissible Annual Volumes in 35 Victorian Groundwater Management Areas*, 2004, p.2.

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