LAND COURT OF QUEENSLAND

CITATION:	*Gallo and Williams v Chief Executive, Department of Environment and Resource Management* [2012] QLC 0015
PARTIES:	Filomena, Francesco Ralph and John Peter Gallo (WAA021-07) and Richard Fred and Mary Olive Williams (WAA022-07) (appellants) v. Chief Executive, Department of Environment and Resource Management (respondent)
FILE NO:	WAA021-07 and WAA022-07
PROCEEDING:	Appeals under the *Water Act 2000*
DELIVERED ON:	5 April 2012
DELIVERED AT:	Brisbane
MEMBER:	Mr PA Smith
ORDERS:	**1. As regards the appeal of Gallo (WAA021-07), the appeal is dismissed.** **2. As regards of the appeal of Williams (WAA022-07), the appeal is allowed and it is directed that a licence to take 515 megalitres of water per annum be granted, with such licence to be subject to appropriate conditions as to the monitoring and management of the licence.** **3. Williams and the respondent are to meet and seek to negotiate agreed conditions of the licence within 28 days of the date hereof.** **4. Williams and the respondent are to jointly advise the Court of the outcome of these negotiations in accordance with Order 3 hereof by not later than 4.00pm on Tuesday 8 May 2012.**

5. **In the event that the parties Williams and the respondent are not able to reach agreement as to agreed conditions, matter WAA022-07 is listed for further review and directions on Thursday 10 May 2012 at 2.30pm.**
6. **The Registrar of the Land Court is directed to write to the Honourable the Premier and the Minister for Natural Resources and Mines enclosing a copy of these reasons and bringing the Premier's and the Minister's attention to paragraph [92] of these reasons in particular and generally to those parts of this decision which relate to the practices of the respondent in assessing applications for water licences within Area B of the BWRP in the period 2002 and following.**

CATCHWORDS:

WATER - *Water Act 2000* - purposes of Act - system for planning, allocation and use of water - sustainable management - efficient use - ecologically sustainable development (precautionary principle)

WATER - water licence - criteria for deciding application for licence - availability, environmental impacts, efficiency of use - Due application deficient as to proposed use of water - application rejected - other application met criteria and allowed but to a lesser amount than claimed

WATER - water licence - safeguards applicable to grant - doubts on scientific certainty regarding hydro-geological evidence - overcome by appropriate monitoring conditions - to be agreed between parties if possible

LAND COURT - jurisdiction - conferred by statute - not commission of enquiry - can only consider cases before it, on basis of evidence before it in accord with relevant legislation

WORDS AND PHRASES - "fairness" - consistency between allocations - earlier licences granted in breach of statutory criteria - whether power of Court to grant present application on similar terms - need to comply with legislation

MALADMINISTRATION - water licences granted in breach of statutory criteria - reasons for such not clear - request by later applicants for referred by Court to

	Crime and Misconduct commission - refused - reference to Premier and relevant Minister instead
APPEARANCES:	Mr PD Sheridan for the Appellants Mr MD Hinson SC and Mr SP Fynes-Clinton for the Respondent
SOLICITORS:	P & E Law for the Appellants Crown Solicitor for the Respondent

Background

[1] Pursuant to s.887 of the *Water Act 2000* ("*Water Act*), appeals were made to this Court against certain review decisions of the respondent, the Chief Executive, Department of Environment and Resource Management.[1] The appeals were lodged by Filomena, Francesco Ralph and John Peter Gallo ("Gallo") and Richard Fred and Mary Olive Williams ("Williams"). The appeals have been heard together in their entirety. The appeals raised common issues, and there is a single body of evidence.

[2] The path that lead both appellants to this court are relatively non controversial. Both Gallo and Williams own properties in the Atherton subartesian area. Their land lies within what is known as Management Area B ("Area B") of the *Water Resources (Barron) Plan 2002* ("BWRP").

[3] On 17 February 2005 Gallo applied for a licence to take 990 megalitres of ground water per annum from Area B. On 9 November 2006, the respondent made its decision with respect to the application and granted Gallo an allocation of 130 megalitres per annum.

[4] Relying on the provisions of s.861 of the *Water Act*, Gallo sought an internal review of the decision on 19 December 2006. On 14 February 2007, the respondent's initial decision was confirmed by a review decision, which led Gallo to file their appeal to this Court on 23 March 2007.

[5] The history with respect to the Williams appeal is similar. On 11 March 2003 Williams applied for a licence to take 750 megalitres of ground water per annum from Area B. The initial decision of the respondent was made on or about 9 November 2006, and was to grant Williams an allocation of 80 megalitres per annum.

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[1] This Department was previously known as the Department of Natural Resources and Water at the time that the appeals were made.

[6] On 20 December 2006 Williams sought an internal review of the decision, and the initial decision was confirmed by a review decision dated 13 February 2007. Subsequently, the Williams appeal to this Court was filed on 23 March 2007.

[7] As required by s.208 of the *Water Act*, both applications were publicly notified. No submissions were received in respect of either application.

Relevant Legislative Provisions

[8] It is necessary to consider in some detail relevant provisions of the *Water Act* and subordinate legislation to that Act. I turn first to ss 10, 11 and 12 of the *Water Act* which sections set out important provisions as to the purpose of the legislation which is, in short form, to advance sustainable management and efficient use of water and other resources by establishing a system for the planning, allocation and use of water. Section 10 provides in full as follows:

> "**10 Purpose of chapter 2**
>
> (1) The purpose of this chapter is to advance sustainable management and efficient use of water and other resources by establishing a system for the planning, allocation and use of water.
>
> (2) For subsection (1), ***sustainable management*** is management that—
>
> (a) allows for the allocation and use of water for the physical, economic and social wellbeing of the people of Queensland and Australia within limits that can be sustained indefinitely; and
>
> (b) protects the biological diversity and health of natural ecosystems; and
>
> (c) contributes to the following—
>
> (i) improving planning confidence of water users now and in the future regarding the availability and security of water entitlements;
>
> (ii) the economic development of Queensland in accordance with the principles of ecologically sustainable development;
>
> (iii) maintaining or improving the quality of naturally occurring water and other resources that benefit the natural resources of the State;
>
> (iv) protecting water, watercourses, lakes, springs, aquifers, natural ecosystems and other resources from degradation and, if practicable, reversing degradation that has occurred;
>
> (v) recognising the interests of Aboriginal people and Torres Strait Islanders and their connection with the landscape in water planning;
>
> (vi) providing for the fair, orderly and efficient allocation of water to meet community needs;
>
> (vii) increasing community understanding of the need to use and manage water in a sustainable and cost efficient way;

(viii) encouraging the community to take an active part in planning the allocation and management of water;

(ix) integrating, as far as practicable, the administration of this Act and other legislation dealing with natural resources.

(3) For subsection (1), ***efficient use*** of water—

(a) incorporates demand management measures that achieve permanent and reliable reductions in the demand for water; and

(b) promotes water conservation and appropriate water quality objectives for intended use of water; and

(c) promotes water recycling, including, for example, water reuse within a particular enterprise to gain the maximum benefit from available supply; and

(d) takes into consideration the volume and quality of water leaving a particular application or destination to ensure it is appropriate for the next application or destination, including, for example, release into the environment."

[9] Section 11 of the *Water Act* sets out the principles of ecologically sustainable development. In affect, this is a statutory statement of what is otherwise known as "the precautionary principle". Section 11 provides as follows:

"**11 Meaning of *principles of ecologically sustainable development***

The following principles are ***principles of ecologically sustainable development***—

(a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;

(b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;

(c) the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;

(d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

(e) recognition of the need to develop a strong, growing and diversified economy that can enhance the capacity for environmental protection;

(f) decisions and actions should provide for broad community involvement on issues affecting them."

[10] Section 12 of the *Water Act* then goes on to provide that if a function or power is conferred on an entity under this chapter "the entity must perform the function or exercise the power in a way that advances this chapter's purpose".

[11] Section 210(1) of the *Water Act* sets out the criteria for deciding applications for water licences:

> "**210 Criteria for deciding application for water licence**
>
> (1) In deciding whether to grant or refuse the application or the conditions for the water licence, the chief executive must consider the following—
>
> (a) the application and additional information given in relation to the application;
>
> (b) if notice of the application has been published—all properly made submissions made about the application;
>
> (c) any water resource plan, resource operations plan and wild river declaration that may apply to the licence;
>
> (d) existing water entitlements and authorities to take or interfere with water;
>
> (e) any information about the effects of taking, or interfering with, water on natural ecosystems;
>
> (f) any information about the effects of taking, or interfering with, water on the physical integrity of watercourses, lakes, springs or aquifers;
>
> (g) strategies and policies for the sustainable management of water in the area to which the application relates;
>
> (h) the sustainable resource management strategies and policies for the catchment, including any relevant coastal zone and regional aquifer systems;
>
> (i) the public interest."

[12] Section 210(1)(c) refers to any water resource plan that may apply to the licence. The BWRP applies to the appellant's land. That plan provides in s.11(2):

> "**11 General outcomes**
>
> (2) Both surface water and subartesian water are to be allocated and managed in a way that seeks to achieve a balance in the following outcomes—
>
> (a) to allow water to be used for the following—
>
> (i) agriculture;
>
> (ii) aquaculture;
>
> (iii) industrial needs;
>
> (iv) small scale uses;
>
> (v) stock and domestic purposes;
>
> (vi) tourism and recreational uses;
>
> (vii) urban needs;

(b) to provide for the continued use of all water entitlements and other authorisations to take or interfere with water;

(c) to encourage the efficient use of water;

(d) to maintain areas of significant tourism and recreational value, including the Barron Falls, Barron Gorge and Tinaroo Falls Dam;

(e) to allow cultural use by Aboriginal or Torres Strait Islander communities;

(f) to provide water to support natural ecosystems."

[13] Section 51 of the BWRP is also relevant. It provides as follows:

"**Section 51 - Decisions about taking subartesian water**

(1) This section applies to an application for or about a water licence to take or interfere with subartesian water if granting the application would have 1 or more of the following effects on subartesian water—

(a) increase the volume of water taken or interfered with;

(b) change the location from which water may be taken or interfered with;

(c) change the conditions under which water may be taken.

(2) In deciding the application, the chief executive must have regard to—

(a) the availability of an alternative water supply for the purpose for which the water is required; and

(b) the efficiency of the proposed water use practices; and

(c) whether the proposed taking or interfering is likely to have a direct adverse effect on surface water flows; and

(d) the cumulative impact of taking or interfering with subartesian water on surface water flows and groundwater flows.

(3) Subsection (2) does not limit the matters the chief executive may consider. (emphasis added)"

[14] Reference should also be made to s.211 of the *Water Act* which provides, in ss (1), that if the chief executive is satisfied that the application should be granted in whole or in part, the chief executive must grant all or part of the application for a stated period with or without conditions. Sub-section (2) then goes on to provide that, if the chief executive is not satisfied that the application should be granted the chief executive "must" refuse the application.

The hearing

[15] The hearing of both the Gallo and Williams appeals were heard together and occupied seven sitting days. Both appellants were represented by Mr Sheridan of Counsel, instructed by P and E Law. The respondent was represented in both matters

by Mr Hinson SC and Mr Fynes-Clinton of Counsel, instructed by the Crown Solicitor.

[16] Both the appellants and the respondent relied upon expert evidence to support their relevant cases, as well as lay witnesses. An examination of the evidence of each witness is set out in later parts of this decision. It was not considered necessary by any of the parties for the court to conduct a view of the relevant land.

The history of groundwater allocations in the Atherton subartesian area

[17] Both the appellants and the respondent have set out their view of the history of water allocations in Atherton over the last few decades. They have also, in their submissions, drawn conclusions as a consequence of that history. The respondent's history is relatively comprehensive and well cross referenced with footnotes, whilst the appellants' history is, quite deliberately, somewhat shorter. Read together, many of the core issues in dispute in these appeals are crystalised. It is appropriate therefore that I set out the respective histories in full, maintaining the footnoting used by both the respondent and the appellants. For reasons that will become obvious, I start with the respondent.

[18] At paragraphs 23 to 50 of their submissions, Counsel for the respondent stated as follows:

> "**A short history of groundwater allocation in Atherton Subartesian area**
>
> **23.** It is apprehended from the initial oral submissions made on behalf of the Appellants on 27 September 2010 that the Appellants will ask the court to make a finding that their treatment has in some way been arbitrary, capricious or least improperly discriminatory as compared to other applicants.
>
> **24.** The Respondent's primary response to any such assertion is that the present appeals must be decided on their merits, on the evidence presented to the court in the proceedings, and that any question about whether the proper outcome flowing from that consideration is 'unfair' or 'inconsistent', as compared to other outcomes which have not been the subject of an appeal to this court, is simply irrelevant. The court is not undertaking a commission of inquiry or a general review of State government policy or policy implementation.
>
> **25.** However, if the Respondent were simply to leave the issue there, that might be misconstrued, particularly in light of some intimations of initial evidentiary impression from the court itself on 27 September 2010, as an admission or concession that the present Appellants have been treated in an inconsistent or discriminatory way as compared to other applicants.
>
> **26.** Any such suggestion is false as a simple matter of objective fact. However, to demonstrate why that is so, it is necessary to go into something of the history in the relevant locality in relation to the issue of groundwater allocation. That history is revealed by some of the oral evidence, particularly of Mr Bell, any by documents which form part of the evidence.
>
> *(a) Pre-Barron Water Resource Plan 2002*

27. Through to the 1980s, there was relatively little interest in groundwater use in the subject locality.[4] It may be inferred that this was because surface water allocations were generally available at that time, providing no incentive to incur the higher cost involved in extracting underground water.

28. However, through the 1990s, there was significantly increased interest in extracting underground water, with extraction in the locality growing from approximately 3,000 megalitres per year in the 1980s to more than 14,000 megalitres per year by 2001[5]. The reasons for this do not appear clearly in the evidence, and are not ultimately relevant to any matter in issue, but it may reasonably be inferred that licences for surface water irrigation became more difficult to obtain, leading to greater interest in the groundwater alternative.

29. Before the advent of the *Water Resource (Barron) Plan 2002*, the part of general locality (being that area within the former Atherton Shire local government area) was subject to the general licensing regime under the water legislation of the day (*Water Resources Act 1989*), rather than any area-specific management regime[6]. It appears that the locality outside the former Atherton Shire was unregulated[7].

30. By the time of the advent of the plan, around 19,850 megalitres per annum had been allocated under groundwater licences in the area around Atherton/Tolga/Kairi which subsequently became Management Area A[8].

(b) Water Resource (Barron) Plan 2002

31. The Plan formally created the Atherton Subartesian area, and Management Areas A and B.

32. It reflected a determination that Area A was over-allocated, and prohibited the issue of additional allocations which would take the total allocation beyond 14,500 megalitres per annum, a figure materially less than the then existing allocations in that Area. One infers that the intent of the Plan was to bring total allocations down to the cap over time through surrenders. There is no evidence that any power to compulsorily reduce entitlements by changing licence allocations (currently Water Act, s 218) has ever been exercised.

33. The Plan contemplated further applications and allocations in Area B.

(c) 2002 to early 2005

34. The cap in Area A seems to have caused a 'water rush' in Area B[9]. Many applications were made. By 2005, 4,264 megalitres per annum had been granted, but there were applications made seeking a further 14,916 megalitres per annum[10].

35. During this early period of the BWRP, during which the allocations taking the total to 4,624 megalitres per annum were granted, it is accepted factually that the assessment of applications focused on consideration of bore pump test results, and that applications were not scrutinised in terms of hydro-geological impact or a requirement to demonstrate efficiency by reference to a specific irrigation management plan.

36. It is generally accurate to say that, during this period, an applicant who could demonstrate the rate at which the bore could feasibly be pumped (through a bore pump test) received an allocation based on up to 5 megalitres per hectare of land proposed to be irrigated by the applicant and that, in some cases, there was no close scrutiny to verify whether the land proposed by the applicant to be irrigated was irrigable[11].

37. In short, the early applicants did have a relatively easy path to a licence, and did receive what can now be viewed, with the wisdom of hindsight, as overly generous treatment.

(d) 2005 to November 2006

38. By 2005, as noted above, the Respondent was faced with a situation where total allocations granted in Area B, most of which had been granted under the BWRP, had reached 4,264 megalitres per annum, with further applications made seeking a total of 14,916 megalitres per annum on top of that.

39. Concerns were raised that this may be unsustainable in terms of security of supply and environmental impacts[12]. An 'administrative' moratorium on considering new applications or dealing with existing applications was imposed in July 2005[13], and this was formalised by a moratorium notice under the Water Act on 14 February 2006[14].

40. The result was that no applications for new or additional groundwater allocation were considered or assessed after July 2005. As a result of the 2009 BWRP amendments, which mandate refusal of any new applications in the area which will increase total allocations[15], no more will be made.

41. This position still left about 30 applications 'in the system' in 2005[16], seeking a total of 14,916 megalitres per annum. These needed to be dealt with at some stage and in some way having regard to the supply and environmental concerns which had emerged.

(e) New entitlements since November 2006

42. The conclusion of the initial work done by Prendergast and Walsh for the Respondent in 2006, and referred to in the 'Aquifer Analysis Atherton Subartesian Area Management Area B' of October 2006 (Exhibit 7), was that Area B was by then heavily allocated having regard to the broader issues identified, even though water was still physically available to pump.

43. Of the 30 or so applications not decided, there were 11 where the applicant had spent money to establish bores by mid-2006, and those were decided in or shortly after November 2006[17].

44. The balance where the applicants had not spent any money to construct bores by mid-2006 were left in abeyance and subsequently refused upon commencement of the 2009 BWRP amendments. There have been no appeals against those refusals[18].

45. It may be inferred from the conclusions in the 2006 Prendegast & Walsh work and in Exhibit 7 that the prudential approach, having regard only to security of existing entitlements and environmental issues, may have been to also refuse the 11 applications.

46. However, given that the applicants have spent money in good faith in making their applications and constructing bores to prove that they could access groundwater if it was granted, a compromise policy position was adopted by which a fair and meaningful allocation was made. That position, in terms of how the 11 remaining applicants ought be decided, is set out in Exhibit 7. Decisions on the 11 remaining applications were made in accordance with that document in or around November 2006. The present Appellants, and Ms de Tourneour, comprise 3 of those 11 applicants.

47. This is reflected in the outcomes of the 11 applications, which are summarised in Exhibit 47. In each case, the allocation was significantly less than that applied

for, and significantly less than an allocation determined by simply allocating 5 megalitres per hectare per annum.

48. As Exhibit 47 indicates:-

(a) appeals to the Court were made by 5 of the applicants;

(b) one appeal was settled (J & M Gallo);

(c) one appeal was withdrawn (Cowie);

(d) one has been litigated (de Tourneour)

49. The final two are the Gallo and Williams appeals before the court.

(f) What the history shows

50. This short history demonstrates that it is quite wrong to assert that any aspect of the treatment of the Appellants has been arbitrary or capricious. The Appellants (along with 9 other applicants in similar circumstances) were treated *differently* from other applicants whose applications had been made and decided before the 2005 moratorium. However, that occurred simply because:-

(a) the Respondent did not have the clairvoyant foresight to anticipate the rush of applications made after the commencement of the BWRP;

(b) there was a time lag between the commencement of the plan and the realisation that the level of demand in fact being experienced was unlikely to be sustainable;

(c) once the Respondent came to that realisation, it moved immediately to impose a moratorium;

(d) while, at the individual level, those whose applications had not yet been decided at the time of imposition of a moratorium will obviously be disappointed that they have been treated less favourably than those who got their applications decided earlier:-

(i) the Respondent clearly acted reasonably and appropriately having regard to the purposes of the Water Act in imposing a moratorium and obtaining further studies about the sustainability of further groundwater allocations;

(ii) once the Respondent had the information from those studies, it treated the 11 remaining applicants whose applications were permitted to go forward to receive a meaningful level of allocation in a consistent and reasoned way, having regard to the better information which it then possessed about sustainability issues.

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4 Exhibit 10, Cook & ors (2001), p 11.

5 Ibid

6 Exhibit 5, Prendergast & Walsh 2008, page 19

7 See BWRP, s 57, which refers to parts of Management Area B for which a licence was not required prior to the commencement of the plan. See also T5-10, L20.

8 Exhibit 5, Prendergast & Walsh 2008, page 23. The authors refer to this figure being current in 2005, but no new allocations were made in Management Area A after the advent of the BWRP in 2002.

9 Exhibit 7 'Aquifer Analysis Atherton Subartesian Area Management Area, B', Appendix 1

10 Exhibit 7 'Aquifer Analysis Atherton Subartesian Area Management Area, B', Page 1

11 That is, to the extent that allocations were granted over non-irrigable land, that genesis of that outcome was a misrepresentation by the applicant to the Respondent that the applicant proposed to irrigate land which the applicant knew could not be irrigated.

12 Exhibit 7 'Aquifer Analysis Atherton Subartesian Area Management Area B', page 1.

[13] Exhibit 7 'Aquifer Analysis Atherton Subartesian Area Management Area B', Appendix 1; T5-57 to 58
[14] Exhibit 18
[15] BWRP, Reprint 1B, s 53.
[16] T5-58, L10
[17] T5-58, L20 to 30
[18] Ibid. Refusal was mandatory and there was, effectively, no right of appeal"

[19] By their submissions at paragraphs 22 to 30, Counsel for the appellants countered what the respondent had to say as follows:

"**Existing Allocations in Area B**

22. Consideration by the Court of existing allocations in Area B is not only relevant, but mandated by s 210(1)(d) of the *Water Act* and s 11(2)(b) of the *Barron Plan*, quite apart from considerations of fairness and equity across all water users in Area B.

23. The evidence before the Court in respect of existing allocations present the Court with some difficulty. The Respondent has provided a short history of groundwater allocations in the Atherton Subartesian Area[9].

24. The Appellants submit a shorter history: Since the commencement of the *Barron Plan* not one authority to take subartesian water for irrigation purposes in Area B has been issued according to law[10].

25. This maladministration of the legislation has resulted in the complete failure on the part of the Respondent to create and maintain a system for the planning, fair orderly and efficient allocation in the subject Area B[11].

26. It follows that the maladministration conceded by the Respondent in this appeal has seriously compromised the ability of the Respondent to undertake the sustainable management of water, to establishing tradeable allocations and to provide for the continued use of all water entitlements.

27. The failures by the Respondent have not served the public interest, have destroyed the confidence of water users affected by the relevant legislation, have made a sham of community participation in the management process by the WAG.

28. The Court is left with numerous dilemmas as a consequence of the Respondent's maladministration and unlawful allocations:

- How can the Court have regard to the continued use of existing water allocations, when the Respondent concedes and the responsible officer, Mr Bell, admits that none of the licences were issued according to law?

- How does it deal fairly with these Appellants, who are the only people who have complied with the statutory requirements for providing information as to the efficiency of water use?

- How does the Court reconcile the evidence that establishes that many applicants may have been granted irrigation allocations when they conducted no irrigation at all or for amounts in excess of the maximums set out in the plan?

- How does the Court deal with the future trading aspects of the water allocation, which is a continued *use* of the water where it appears many irrigators have been granted allocations in excess of what the law allowed and will in the future be able to trade that excess water for a straight capital gain and without any intention to make productive use of the water?

- How does the Court deal with the periodic adjustment of the nominal allocation in times of drought where the granting of an allocation on the basis of irrigable land would mean that these Appellants are prejudiced and those with existing excessive allocations would suffer no detriment at all?

29. The Appellants submit that it would not be fair nor equitable to dismiss these appeals on the basis that the allocations sought may somehow affect the continued use of existing water entitlements, when it is clear that the Respondent must, given the evidence that has now been ventilated in these appeals, revisit most if not all of the existing allocation in Area B and possibly (even though Area A allocations are not relevant to disposition of these appeals) Area A as well.

30. This reassessment must result in the reduction of some existing allocations and reducing the risk that these allocations may have an effect on existing allocations.

[9] Respondent's submissions at paragraphs [23] - [50].
[10] T5-67, L35-45.
[11] s 10 of the *Water Act*."

Threshold issue - similarities with De Tournouer

[20] The respondent's submissions set out[2] that the disposition of both appeals in these matters is greatly assisted by previous decisions of the Land Court, the Land Appeal Court and the Court of Appeal in relation to a similar licence application in the same locality. That case was De *Tournouer v Department of Natural Resources and Water* [2008] QLC 0151 (Land Court, Member Scott) (30 QLCR 150) (Land Appeal Court) and [2009] QCA 395 (Court of Appeal). To say that *De Tournouer* relates to a similar licence application for land in the same locality is perhaps an understatement. An examination of the facts from *De Tournouer* will show that those facts fall, in almost all relevant respects, on all fours with the application facts with respect to the Gallo and Williams applications. Put simply, water licences were being granted for what is known as Area B as set out in the BWRP. The facts also show that many water licences were applied for within Area B. The respondent processed a significant number of applications and then imposed what it referred to as a departmental moratorium which was subsequently followed by a Ministerial Moratorium. A number of applications made before the institution of either moratorium remained to be considered after the Ministerial Moratorium took effect. These applications included De Tournouer, Gallo and Williams.

[2] See paragraphs [3] to [6].

[21] Counsel for the respondent then went on to state as follows:

> "**4.** … the Court of Appeal endorsed the summary of the issues for determination by this Court in an appeal of this nature, initially identified by Member Scott and endorsed by the Land Appeal Court, as being:-
>
> (a) the availability of water for allocation;
>
> (b) the potential environmental impacts of making the allocation sought; and
>
> (c) the efficiency of the use to which allocated water is proposed to be put.
>
> **5.** In short, the case for the Respondent is that:-
>
> (a) it is not disputed that the quantity of water applied for by the respective Appellants is, more likely than not, physically available from bores which haven been or could be established on the respective properties;
>
> (b) the potential environmental impacts of making the allocation sought are demonstrated by the evidence to be unacceptable because of:-
>
> (i) the adverse impact which taking the allocations sought would have on surface water flows in watercourses in close proximity to the subject properties;
>
> (ii) the cumulative adverse impact of the allocations sought, considered with other existing allocations, on flows reaching downstream areas which, if existing allocations were to be fully utilised, are already insufficient to provide for security of existing downstream entitlements and minimum required environmental flows;
>
> (c) the allocation sought by both Appellants substantially exceeds what is shown by the evidence to be the maximum irrigation volume required for the most intense agricultural use to which their respective properties could be put and, in any event, the Court has no evidence before it as to whether either Appellant actually proposes to carry out the type or level of agricultural activity which the evidence shows to be theoretically possible.
>
> **6.** The cases of both Appellants therefore fail on both the second and third elements, and both appeals should be dismissed."

[22] Not surprisingly, Counsel for the appellants has a totally different view as to the proposed use of the water by Gallo and Williams and the comparisons that the respondent makes with the decision in De Tournouer. The appellants submit as follows:

> "**Efficient use - Sections 11(2)(c) and 51(2) of the *Barron Plan***
>
> 31. Both Appellants have provided details of their water use proposals for assessment by an appropriately qualified expert and provided evidence, by way of Mr Sutherland's report to the Court for the purposes of these appeals.
>
> 32. Both parties engaged experts to assess the efficiency of the proposed water use practices. Both experts inspected the Appellant's properties on more than one occasion, provided individual and joint reports to the Court and gave oral evidence.
>
> 33. Both experts agree that the efficiency of the proposed water use is not in question.

34. Dr Watts was unequivocal in his assessment of the efficiency of the proposed water uses:

    Mr Fynes-Clinton:
    'All Right. You obviously appreciate that there's nothing of substance between yourself and Mr Sutherland in terms of the efficient water uses as such. I've only got three short questions for you, because as you appreciate, your report stands as your evidence. You understand that don't you?'

    Dr Watts:
    'Yes'

    Mr Fynes-Clinton:
    Right. Firstly, just for the Court's assistance, can you give the Court a - an overview as to where matters finally ended up as between you and Mr Sutherland through the evolution of the process that led to your report?

    Dr Watts:
    Well, my instructions were to, um, determine whether, if the licences were granted, the water would be used efficiently. It's our joint view that both properties have good soils; both properties would benefit from additional irrigation. There's no question that the water actually issued under the licences could be used efficiently. (underlining added)

35. The oral evidence of Dr Watts correlates with that in his report:
    'The Williams property currently has no irrigation. It is clear that much of the property has soils and landforms that are suitable for irrigation. Irrigation water could be efficiently, sustainably and economically applied to much of the property.' (at page 8 -underlining added)

    'The Gallo property already has significant irrigation allocations and developments. It is clear that much of the property has soils and landforms that are suitable for irrigation. Irrigation water could be efficiently, sustainably and economically applied to much of the property.' (at page 14- underlining added)

36. Dr Watts in fact went further in his assessment of the sustainability of the proposed use of water on both the Appellant's properties than did Mr Sutherland. Dr Watts' assessment of the Appellants' proposal was that the water could also be economically applied to much of both properties.

37. Dr Sutherland assessed both proposals in minute detail, including; proposed farm program and layout, proposed land use, prioritised development program over an 8 year period, proposed crops, proposed cropping cycle, irrigation technology and layout, layout of irrigation development, crop water requirements, irrigation sustainability, management of the irrigation areas, irrigation scheduling, efficient use of water for crop growth, aquifer monitoring, tail water and storm runoff.

38. The Respondent now submits that the review of the Appellant's proposed farm and irrigation practices conducted by Mr Sutherland as set out in the Crop Water Resource Plans (CWRPs) and the subject of joint expert reports and now in evidence before the Court are not proposals nor evidence of any 'intention', despite the fact that Dr Watts was engaged on behalf of the Respondent to 'act as an expert witness in the above appeals to evaluate, inter alia, the efficiency of the Appellant's proposed water use practices'.

39. If the Respondent had any question of the Appellant Williams in respect of his 'proposal' or his 'intention' there was ample opportunity for him to be cross examined on that point. He was not. The issue of 'intention' was not raised during the hearing with Mr Sutherland, Dr Watts or Mr Williams.

40. The Respondent's submission that the evidence before the Court from both experts does not amount to any evidence of 'proposed water use practices' or 'intention' is a desperate submission.

41. In *De Tournouer* at first instance, the Respondent was castigated by this Court for among other things presenting a case inconsistent with the pre trial process of meetings and joint reporting of experts.

42. This conduct continues in this appeal. The Respondent's submission in respect of the efficiency of the water use practices proposed by the Appellants effectively jettisons the assessment, expert opinion and evidence of Dr Watts in the same way the Respondent jettisoned the expert Lait in *De Tournouer*.

43. If Dr Watts was of the view that neither of the Appellant's proposals amounted to a proposal at all it was open for him to write so in his report or say so in his oral evidence. He did not.

44. The submission of the Respondent relies on a view of the three *De Tournouer* decisions that is misconceived. It retreats from the evidence of the Respondent's own expert on this critical issue in a fundamental manner.

45. De Tournouer failed because when asked in cross examination about his intended use of the water he said he wanted to irrigate pasture. He did not at any time provide evidence of how much water was required to do this or to drought proof the property or to double the carrying capacity of the property. The evidence provided in that case was did not go to the proposal to improve and develop the property as a grazing enterprise, but as a cropping enterprise which was not proposed by De Tournouer.

46. There is evidence before the Court of a situation in the subject area where there was no 'proposal' or indeed 'intent' to use allocated water for irrigation, efficiently or at all.

47. In his Application for a water licence Mr Slape informed the Respondent that:

> 'Though we are not using this bore for irrigation and do not intend to, we wish to maintain our eight megalitre quota to pass on in a future sale of the property.'

48. Despite this admission by the applicant Slape, the Respondent approved the application, thus providing a direct financial gain to Slape.

49. The Appellants submit that their proposals have been assessed as being *efficient* from every possible aspect by experts engaged by both parties and the belated submission by the Respondent that there is no evidence before the Court in respect of this issue should be rejected."

[23] The potential impact of the respondent's position is best summarised in paragraphs 121 and 122 of their submissions as follows:

"**121.** In *de Tournouer*, the appellant failed because she failed to produce to the court satisfactory evidence about what it was that she in fact proposed to do with the water allocation sought if it were granted.

122. In that case, the appellant had included some skeletal information about proposed crop types in her application, but had included nothing which contained any information which would allow for any decision about the efficiency of proposed water use practices[52]. An examination of the applications lodged by the present Appellants shows that the present

> Appellants dealt with that matter in Part F of the application form in exactly the same manner as did Ms de Tournouer[53].

[52] [2009] QCA, at [12]
[53] Exhibits 1 and 3 "

[24] It is critically important to note the respondent's reference to exhibits 1 and 3 which are the applications made by Messrs Gallo and Williams respectively. It is alleged that these applications are dealt with in Part F in "exactly the same manner as did Ms De Tournouer".

[25] It is necessary at this point to examine the manner in which the Court of Appeal dealt with this issue in *De Tournouer*. Fraser JA, with whom the other members of the court agreed, made the following relevant observations:[3]

> "[12]The appellant lost for the different reason that she failed to provide evidence which would allow the Member to consider the third element, concerning the use to which allocated water was to be put. That element comprehends both efficiency of water use practices in terms of ss 11(2)(c) and 51(2)(b) of the *Barron Plan* and the continuous use of water issue in s 11(2)(b) of that plan. In conformity with those provisions, the application form (in 'Part F Water Requirement') required the applicant to describe 'the proposed water scheme'. Under a sub-heading 'Irrigation Requirements', the form called for information about 'Crop Type', 'Proposed Area', 'Maximum Weekly Application', 'Maximum Monthly Volume', and 'Time of Year Required'. The applicant left all of those spaces blank, save that under the heading 'Crop Type' the form records, 'Pasture Hay', 'Maize' and 'Potatoes'. The form contained no information which would allow for any decision about the efficiency of proposed water use practices or whether the water would be used continuously.
>
> …
>
> [26] In challenging this reasoning the applicant's senior counsel pointed to evidence to the following effect: the application had a long history going back over five years; the applicant and her son had invested a large amount of money in seeking a suitable water allocation, including drilling bore holes and engaging and paying large amounts of money to experts and lawyers; the applicant's son, upon whose evidence the applicant relied, was an experienced man of the land; and an officer of the respondent encouraged him to make an application based on the statutory maximum of 5 ML/ha if he was able to locate good bores (which he did). None of that justified an inference that the water allocation would be efficiently used. As I have mentioned, that topic was simply not addressed in any meaningful way in the application or in the evidence."

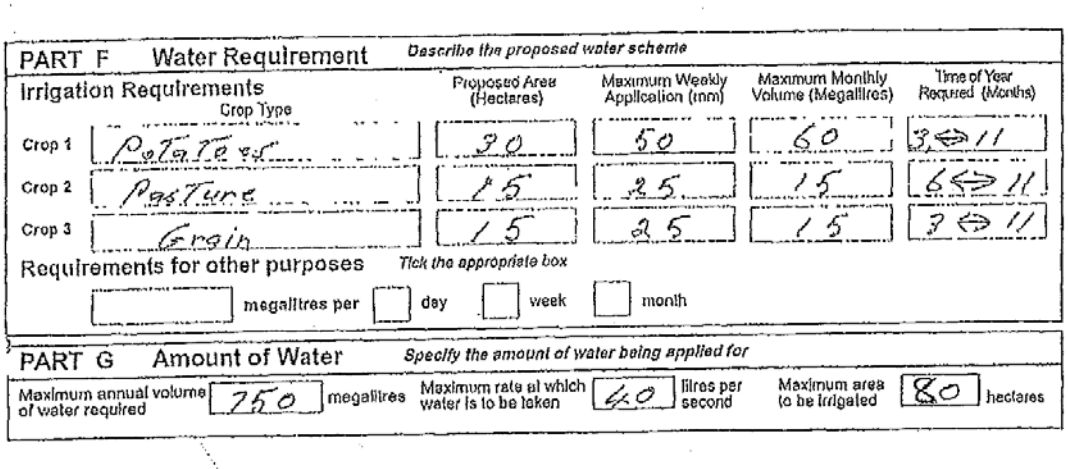
[26] It is critical to examine in some detail the exact words used by both Gallo and Williams in Part F of their application forms as set out in exhibits 1 and 3.

[27] As set out above, Fraser JA in *De Tournouer* noted that all aspects of Part F Water Requirement in the application form in De Tournouer was left blank, save for details of "Crop Type" under which De Tournouer wrote "Pasture Hay", "Maize" and "Potatoes". Turning now to exhibit 3 in these proceedings, which is the Gallo

[3] At paragraphs [12] and [26].

application dated 17 February 2005, Part F Water Requirement has been completed by Gallo in an almost identical fashion to that of De Tournouer. Information about "Proposed Area (Hectares)" "Maximum Weekly Application (mn)" "Maximum Monthly Volume (Megalitres)" and "Time of Year Required (Months)" have all been left blank. Under crop type, Gallo has written "Pasture", "Corn" and "Potatoes". I further note that for "Amount of Water" of the application, Gallo has stated the maximum annual volume of water required to be 990 megalitres but has not included details as to the maximum rate at which the water is to be taken nor the maximum area to be irrigated. Clearly, the submissions of Counsel for the respondent are correct in stating that, as regards the manner in which the Gallo applicants completed Part F of their application, this case is on all fours with *De Tournouer*. Surprisingly, however, the matter is entirely different when one considers the Williams application which is exhibit 1.

[28] The general manner in which the evidence has been led in the Gallo and Williams appeals and submissions made by all Counsel leave one with the clear impression that the Williams application, in all material respects, has been completed in essentially the same manner as that of Gallo and De Tournouer. In fact, I should go as far as saying that everyone involved in these proceedings appears to have acted on the presumption that the Williams application was in like terms to Gallo and De Tournouer. It is only when one goes back to basics, which in this case is a close examination of the actual application that started this whole process, that one discovers that the Williams application is nothing like the applications in Gallo or De Tournouer. The easiest way to set out the actual application in Parts F and G from the Williams application which is exhibit 1 is to provide an image of those parts of the application, which is as follows:



PART F Water Requirement — *Describe the proposed water scheme*

Irrigation Requirements (Crop Type)	Proposed Area (Hectares)	Maximum Weekly Application (mn)	Maximum Monthly Volume (Megalitres)	Time of Year Required (Months)
Crop 1: Potatoes	30	50	60	3 ⇔ 11
Crop 2: Pasture	15	25	15	6 ⇔ 11
Crop 3: Grain	15	25	15	3 ⇔ 11

Requirements for other purposes — *Tick the appropriate box*

[ ] megalitres per [ ] day [ ] week [ ] month

PART G Amount of Water — *Specify the amount of water being applied for*

Maximum annual volume of water required: 750 megalitres | Maximum rate at which water is to be taken: 40 litres per second | Maximum area to be irrigated: 80 hectares

Far from being open to criticism that Williams has not provided any information which would allow for any decision about the efficiency of proposed water use practices or whether the water would be used continuously to be made, Williams has in fact fully completed the form, providing details with respect to every question asked in this regard by the respondents form.[4]

[29] I certainly do not wish to entertain the thought that the legal representatives for the appellants have deliberately "read down" the Williams' application to be common with Gallo; nor do I wish to entertain the like notion that the legal representatives for the respondent have acted in reverse fashion to make these appeals appear consistent with *De Tournouer*. Whatever the truth may be, it must be said that the Court is disappointed that neither side brought the clear discrepancies in the Gallo and Willaims' applications directly to the Court's attention.

Consequences of the application details in Part F

[30] I have scoured all of the evidence with respect to the Gallo application but have been unable to find any statement or other indication by Gallo indicating in clear terms the use to which Gallo proposes to use any water obtained via the water licence application. It is of note that Gallo did not give any evidence at the hearing nor was any statement or other evidence from Gallo provided to the court. Accordingly, the only conclusion that can be drawn is that Gallo is in fact on all fours with De Tournouer, as submitted by Counsel for the respondent. The result is that, in light of the Court of Appeal decision in *De Tournouer*, I have no option but to refuse the application.

[31] The reverse situation applies with respect to Williams. The question could rhetorically be asked: what more could Williams do than to complete in its entirety the application form provided by the respondent requesting details of proposed water use? The answer is, of course, nothing more.

[32] Furthermore, Mr Willaims gave evidence at the hearing. Neither his statement[5] nor evidence in chief touched on Part F of Exhibit 1. Likewise, however, he was not cross-examined on Part F of Exhibit 1. Exhibit 1 was in evidence. The author was not challenged on the contents of Part F. It is therefore uncontested evidence before this Court.

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[4] I note that Williams did not complete that part of Part F headed "Requirements for other purposes". However, this is consistent with the fact that Williams only completed one part of Part E "Water Use", that being irrigation. Clearly, Williams does not require water for any purposes other than irrigation.

[5] Exhibit 22.

The availability of water for allocation

[33] Whether or not there is water available for allocation is of course a key element of the decision. For the purposes of the current appeals, however, this matter is not in dispute between the parties. As Counsel for the respondent put it:

> "It is not disputed that the quantify of water applied for by the respective appellants is, more likely than not, physically available from bores which have been or could be established on the respective properties."[6]

Having considered all of the evidence before me, I am in agreement with this proposition. Accordingly, this case turns to be primarily decided on the two other key criteria as identified by Member Scott and endorsed by the Land Appeal Court, they being the potential environmental impacts of making the allocation sought, and the efficiency of the use to which allocated water is proposed to be put.

Potential environmental impacts

[34] As indicated earlier in this decision, a key aspect for consideration is an examination of any potential environmental impacts in making the allocation sought. As Counsel for the respondent put it in their submissions, despite the high level of scientific and technical complexity exhibited by many aspects of the evidence of both expert witnesses (Dr Evans for the respondent and Mr Smith for the appellants), "there is ultimately not nearly as much between them as first impressions might suggest".[7] I agree.

[35] I further agree with Counsels' conclusions that the expert evidence in this matter is highly technical in nature. One example of the technical nature of the evidence is found in exhibit 19 at page 59 under the heading "Linear Uncertainty Analysis". The methodology is set out in the following way:

> "**6. Linear Uncertainty Analysis**
>
> **6.1 Methodology**
>
> Analysis of the uncertainty associated with model predictions, and calculation of ancillary quantities discussed below, was undertaken using programs PREDUNC4, PREDUNC5 and PREDUNC6 of the PEST suite. These programs compute post-calibration predictive uncertainty using the equation:
>
> $$\sigma^2_s = \mathbf{y}^t \mathbf{C(p)y} - \mathbf{y}^t\mathbf{C(p)X}^t[\mathbf{XC(p)X}^t + \mathbf{C(\varepsilon)}]^{-1}\ \mathbf{XC(p)y} \qquad (6.1)$$
>
> where:
>
> **p** is a vector of parameters employed by the model;

[6] Respondent's submissions paragraph 5A.
[7] See respondent's submissions paragraph 67.

C(p) is a covariance matrix describing the state of user knowledge (and lack of knowledge) of parameter values, which also includes assessment of innate spatial continuity (or lack of continuity) of hydraulic properties;

σ^2_s is the uncertainty associated with the prediction *s*;

y is a vector of sensitivities of the prediction *s* to parameters **p** used by the model;

X is the Jacobian matrix arising from the model calibration process; this comprises the sensitivity of every model output for which there is a corresponding data element used in the calibration process, to every parameter employed by the model;

C(ε) is the covariance matrix of measurement/structural noise.

See Christensen and Doherty (2008), James et al (2009) and Doherty (2009a) for further details. The following aspects of uncertainty and ancillary analysis based on equation (1) should be noted.

1. Calculations based on equation (1) assume model linearity; hence they are approximate in nature.

2. Predictive uncertainty calculated through equation (1), and applied to the Upper Barron Catchment model, is based on a highly parameterized approach to model calibration and uncertainty analysis. Hence it is able to represent both the 'solution space' and 'null space' contributions to parameter and predictive uncertainty described by Moore and Doherty (2005). The latter contribution arises from an inability on the part of the calibration process to represent all but broad scale variations of hydraulic properties, notwithstanding the high degree of geological heterogeneity that prevails in most study areas. The possible extent and nature of this heterogeneity is represented by the user-supplied **C**(**p**) matrix, which can thereby be characterized as a synthesis of geological knowledge as it pertains to a particular study site.

3. Equation (6.1) makes no mention of parameter values or of the values of model outputs corresponding to particular parameter values; uncertainties depend only on sensitivities of model outputs to parameter values.

4. By assuming that certain individual or grouped parameters are perfectly known (and by modifying **C**(**p**) accordingly), the reduction in predictive uncertainty thus accrued can be defined as the 'contribution' that these individual or grouped parameters make to the uncertainty of a particular model prediction.

5. By computing the increase in predictive uncertainty incurred by omitting individual or grouped observations from the calibration dataset (and by modifying the **X** matrix accordingly), the cost of omission of that observation, or group of observations, for the uncertainty of that prediction can thereby be evaluated.

6. Through re-constituting the **X** matrix based on the premise that the calibration dataset is comprised of only a certain observation, or group of observations, the benefit of inclusion of that observation, or group of observations, for the uncertainty of that prediction can be evaluated."

[36] It is of note that no one was able to explain to the court the meaning of the formula set out in the methodology: all that could be explained was that it was a formula that was able to be used to draw conclusions as to the uncertainty analysis.

[37] The expert evidence by Dr Evans and Mr Smith occupied many days of hearing and also a number of relatively thick exhibits. It is difficult to do justice to their evidence by providing a quick analysis of their evidence with drawn conclusions. I have been assisted in the task at hand greatly by Counsel for both parties who have provided meaningful summaries (albeit, of course, from the perspectives of their clients' interests) with respect to the evidence of Dr Evans and Mr Smith. In order to allow as meaningful as possible of an understanding of the complex technical scientific evidence in this case, the best course available to me is to simply repeat the submissions by Counsel for both sides with respect to the hydro-geological evidence. I will set out these submissions in the order that they were received, starting with the respondent's submissions.[8]

> "*(a) connection between aquifers and surface streams*
>
> **69.** The evidence is quite clear that there is a demonstrated and significant level of connection between aquifers in Management Area B and surface streams in that area. The expert witnesses differed on the precise mechanism of that connection, but that difference is ultimately not a matter of any moment either way.
>
> **70.** The connection is objectively demonstrated by the Upper Barron Field Program, October 2008. Neither party questioned the accuracy of the data reported by Mr Douglas in that document. The relevant outcomes are summarised in sections 4.3 and 4.4 of Dr Evans' primary report. For both Leslie Creek, at a location relatively proximate to the Gallo property, and Peterson Creek, at a location relatively proximate to the Williams property, observation confirmed that the streams recorded a significant 'gain' in flow. The experts agreed that the only source of that gain can be groundwater. They disagreed only as to whether the groundwater was seeping into the bed and banks of the creeks from the aquifer ('diffuse baseflow'), or whether the gain was the result of water percolating up through surface springs, and then travelling a short distance overland to the creeks.
>
> **71.** More fundamentally, perhaps, the measurements were taken during the driest period of the year meaning that the flow measured at the first measuring point for each stream was, itself, sourced almost entirely from groundwater entering the streams at some point in the catchment.
>
> **72.** The 'isotopic' evidence, when properly analysed, does not suggest to the contrary. Once it is recognised that, despite it being the dry season, there had been some rain near to the time when the samples were taken, and that the isotopic 'signatures' for rainfall are difference at different times of the year, the isotope readings for the stream water at the relevant dates were completely consistent with the creek flows on those days being a mixture of fresh rainwater and groundwater, but with groundwater predominating (as is to be expected in the dry season).

[8] Paragraphs 69 to 96.

73. Moreover, the pumping tests referred to in Chapter 6 of Dr Evans' report (Exhibit 27), while imperfect because of interference by neighbouring bores in some cases, show demonstrable evidence of 'recharge boundaries' (that is, the aquifer recovering faster than would be the case if it were isolated by reason of recharge from adjoining aquifers or streams) in a clear majority of cases. Some 'barrier boundaries' may also exist, but the clear conclusion is that aquifers in the locality are generally connected with each other, as well as with surface water.

74. Ultimately, the disagreement about the precise point of entry of groundwater into the streams is of no moment, because the issue is not one of exactly how any connection occurs, but a much more fundamental issue as to whether surface waters and groundwater are connected, both generally in the relevant catchments, and specifically in the locality of the appeal properties.

75. On the evidence, the answer to that is unequivocally in the affirmative.

(b) impact of pumping the additional allocations - local

76. Again, superficially, the experts were a long way apart on this issue, not least because of the adoption of quite different 'models' to attempt to assess the impact, with Dr Evans favouring an 'analytical' model, while Mr Smith favoured a 'numerical' model.

77. In relation to this issue, there are really two questions. The first is the relatively objective factual question as to what impact pumping the allocation sought would have on surface water flows or other groundwater users. The second is the more subjective and evaluative question, which is ultimately one for the court rather than a matter for expert opinion evidence, as to the significance of those impacts having regard to the relevant legislative scheme, and whether those impacts are or are not of a sufficient magnitude to militate against granting the allocations sought.

78. In relation to the first question, despite the adoption of different models which had nothing in common at all, the experts were again quite close.

79. Dr Evans concludes that the impact of pumping the allocations sought will be:-

(a) for Gallo, a reduction of 2.2 megalitres per day in stream flow in Leslie Creek, which is 10% of the median stream flow in the driest part of the year (October/November);

(b) for Williams, a reduction of 1.4 megalitres per day in stream flow in Peterson Creek, which is 42% of the median stream flow in the driest part of the year.

80. Mr Smith's conclusions are not quite as easy to identify, because nowhere in his evidence does he assess the impact of pumping 990 megalitres per annum for Gallo or 750 megalitres per annum for Williams.

81. He presents the Court with numerical models B and C, both of which are, so Mr Smith says, equally likely to be a correct interpretation of the field data. Mr Smith favours Model C because he believes it to be more consistent with his own observations. The problem with that preference is that Model C only 'adds up' if one adopts a much higher value for aquifer recharge through alluvium surface soils as compared to Model B. However, one of Mr Smith's fundamental premises was that the alluvium soils are impermeable to water, and act as a barrier to any interchange between groundwater and surface water. So, his preferred model is inconsistent with one of his basic premises.

82. Logically, if one were to follow Mr Smith's approach otherwise, the better choice between the two models, neither of which is inherently more likely than not to be correct in a mathematical sense, is Model B which is more consistent with the premises on which Mr Smith proceeds.

83. In any event, the results from Model C which Mr Smith prefers differ from those in Model B because of an assumption made that Leslie Creek is 'shielded' from Gallo bores by non-conductive alluvium. However, this is Mr Smith's own fundamental premise, so that it is not surprising that a model which adopts his basic premise as an assumed parameter produces results more consistent with that premise. It is not an exercise which is capable of giving any proof to the premise on which it is based.

84. One may pause to mention that while the connection between groundwater and surface water is not in the end a matter of any real dispute, the more specific contention that Leslie Creek is 'shielded' in the way assumed for Model C is shown by the evidence to be factually incorrect in the vicinity of the Gallo property. Exhibit 40 shows a basalt rock bar which breaks through the alluvium to the creek, meaning that the basalt aquifer, downstream of the gauging point on Leslie Creek, is in contact with the creek. Dr Evans explained why groundwater discharge would readily occur downstream of the outcrop where there is a significant drop in creek level.

85. Under Model B, and while differences remain, Dr Evans shows in his response report (Exhibit 28) that those differences are not fundamental and that Model B and Dr Evans' model both predict substantial impacts on surface water flow in the creeks if the applications are approved.

86. The Court must act on evidence and must make findings on the balance of probabilities. On the evidence, the more likely than not position is that the impacts will be of the order assessed by Dr Evans, and apparently confirmed, at least broadly, by Mr Smith's Model B.

87. Moreover, all of this discussion is overlayed by the simple propositions that:-

(a) the Appellants carry the onus to prove their case on the balance of probabilities;

and

(b) Mr Smith accepts that neither model B nor model C is more or less likely than the other to be a correct interpretation of the base data;

(c) therefore, <u>on the Appellants' own case,</u> neither model is more likely than not to reflect an accurate or correct conceptual model of the groundwater system in the relevant locality.

88. Whether the impacts are significant enough to warrant refusal of the applications is a matter for the Court. The Respondent submits that depletion in total (median) stream flow of 10% and 42%, at the driest time of the year when water security is at its most vulnerable, speaks for itself as being unacceptable.

(c) impact of pumping the additional allocations - downstream to the dam and beyond

89. Mr Smith's view that recharge in wet season 'resets the hydrological clock' so that additional groundwater extraction does not cause any loss of water for downstream users and environmental flows is inconsistent with the objective evidence which shows decreasing groundwater levels after the wet season over time, in an environment where groundwater extraction is increasing over time.

90. Approval of the applications will, assuming pumping at the full entitlement, cause a reduction of 1,315 megalitres per annum in the stream flow from Leslie and Peterson Creeks into the Tinaroo Falls Dam downstream.

91. This is in a context where water entitlements are at a level such that 71% of the water which would have flowed down the Barron River below Tinaroo Falls Dam before irrigation development is now allocated for use, including for irrigation, either from the dam or by upstream surface water and groundwater licensees. The catchment is, on any view, already very heavily allocated.

92. In terms of assessing whether this is an impact warranting refusal of the application, relevant considerations are:-

(a) no further irrigation allocations are available from the dam, indicating that it has no 'spare capacity' which it can afford to lose without impacting on the security of those who do hold entitlements to irrigate from the dam - in other words, the water which the Appellants wish to take is in a relevant sense already allocated to others;

(b) the Water Allocation Security Objectives and Environmental Flow Objectives would be compromised if existing entitlements were fully utilised, meaning that there is already a potential water management issue which may require difficult decisions in the future about limiting use of existing allocations;

(c) the granting of the large allocations sought would exacerbate those difficulties.

93. That those are the facts may mean that, with hindsight, some existing licence holders have received greater entitlements than they would have received if better knowledge had existed at the time. However, that is no warrant for granting further allocations which would further exacerbate an already unsatisfactory position. If that stance means that later applicants 'miss out' as compared to earlier ones, that is unfortunate at the individual level, but is a necessary outcome in order to achieve the purposes of the Water Act which are about the long term sustainable use of water in the overall public and environmental interest, and not about conferring some kind of 'right to own water' on particular individuals, either generally or merely because some other individual has previously secured such a 'right'.

(e) aspects of Mr Smith's evidence

94. There are several aspects of Mr Smith's evidence which, it is submitted, will make the court wary of accepting his views to the extent that there is a conflict between Mr Smith and Dr Evans which needs to be resolved:-

(a) His primary report, (Exhibit 19) purports to provide opinions based on pumping of 742 megalitres per annum by Gallo and 400 megalitres per annum by Williams, but those figures correspond neither with the allocations sought, nor with Mr Sutherland's figures for volumes which could efficiently be used - these figures are repeated through the report and again in his response report (Exhibit 20) and, in that sense, Mr Smith has not dealt with the case before the Court at all;

(b) Similarly, Mr Smith tells the Court that his analysis is focused only on '*the potential impact of increasing the Appellants groundwater allocation on local surface and groundwater resources*', meaning that his inquiry is much more narrowly focussed than that which the Court must undertake by virtue of a combined reading of ss 10, 12 and 210 of the Water Act and ss 11 and 51 of the BWRP - Dr Evans evidence deals with the full spectrum of relevant issues;

(c) Similarly, and despite s 51(2)(d)), Mr Smith was not even briefed to consider any cumulative impact issues;

(d) It remained a fundamental premise of Mr Smith's analysis, even though his preferred model indicated otherwise, that there is no connection between groundwater and surface waters in the vicinity of the subject properties, a premise which is objectively demonstrated to be wrong in fact by the 2008 field program results;

(e) There was at least one major error on Mr Smith's interpretation of geological mapping in that he proceeded on the basis that a large outcrop of (Impermeable) Hodgkinson's formation existed west of the Williams property, whereas all the mapping indicates (much more permeable) basalt;

(f) Mr Smith appeared in his primary report to place some reliance on the concept of 'perched aquifers', a concept not previously raised in any of the joint meetings, but retreated from placing any specific reliance on their existence under cross-examination, accepting that they are at most a temporary water source during the wet season;

(g) In discussing, under cross-examination, the general principles adopted by Dr Evans, Mr Smith agreed that Dr Evans had approached 'sustainability' consistently with the way in which that term is used in existing legislation, but indicated that his view was that such definitions will have to change - a viewpoint which is of no assistance to this Court in interpreting and applying the existing Water Act.

(f) conclusion on hydro-geological issues

95. The ultimate questions to which this evidence is directed are two of those identified above:-

(a) Will the granting of the licences be likely to have a direct adverse effect on surface water flows? (BWRP, s 51(2)(c));

(b) What will be the cumulative impact of the granting of the licences on subartesian water, on surface water flows and groundwater flows? (BWRP s 51(2)(d))

96. One the evidence, it is submitted that the clear answers are:-

(a) Yes - to the extent of reducing total (median) stream flow in Leslie Creek by 10% and in Peterson Creek by 42%, at the driest time of the year when water security is most vital;

(b) The cumulative impact will be to further reduce water security for the holders of existing entitlements downstream and further reduce the likelihood of meeting Water Allocation Security Objectives and Environmental Flow Objectives, both of which are already under threat if existing entitlements were to be fully utilised."

[38] The appellants' submissions deal with the hydro-geological evidence as follows:[9]

"**Hydro-geological evidence**

67. Despite the high level of scientific and technical complexity exhibited by many aspects of this evidence (from both expert witnesses, Dr Evans and Mr Smith), there is ultimately not nearly as much between them as first impressions might suggest.

68. That submission can be made out by examining where the evidence ultimately stands in relation to the small number of specific factual issues to which this evidence was ultimately directed.

(a) connection between aquifers and surface streams

69. The evidence is quite clear that there is a demonstrated and significant level of connection between aquifers in Management Area B and surface streams in that area. The expert witnesses differed on the precise mechanism of that connection, but that difference is ultimately not a matter of any moment either way.

70. The connection is objectively demonstrated by the Upper Barron Field Program, October 2008. Neither party questioned the accuracy of the data reported by Mr Douglas in that document. The relevant outcomes are summarised in sections 4.3 and 4.4 of Dr Evans' primary reports. For both Leslie Creek, at a location relatively proximate to the Gallo property, and Peterson Creek, at a location relatively proximate to the Williams property, observation confirmed that the streams recorded a significant 'gain' in flow. The experts agreed that the only source of that gain can be groundwater. They disagreed only as to whether the groundwater was seeping into the bed and banks of the creeks from the aquifer ('diffuse baseflow'), or whether the gain was the result of water percolating up through surface springs, and then travelling a short distance overland to the creeks.

71. More fundamentally, perhaps, the measurements were taken during the direst period of the year meaning that the flow measured at the first measuring point for each stream was, itself, sourced almost entirely from groundwater entering the streams at some point in the catchment.

72. The 'isotopic' evidence, when properly analysed, does not suggest to the contrary. Once it is recognised that, despite it being the dry season, there had been some rain near to the time when the samples were taken, and that the isotopic 'signatures' for rainfall are different at different times of the year, the isotope readings for the stream water at the relevant dates were completely consistent with the creek flows on those days being a mixture of fresh rainwater and groundwater, but with groundwater predominating (as is to be expected in the dry season).

73. Moreover, the pumping tests referred to in Chapter 6 of Dr Evans' report (Exhibit 27), while imperfect because of interference by neighbouring bores in some cases, show demonstrable evidence of 'recharge boundaries' (that is, the aquifer recovering faster than would be the case if it were isolated by reason of recharge from adjoining aquifers or streams) in a clear majority of cases. Some 'barrier boundaries' may also exist, but the clear conclusion is that aquifers in the locality are generally connected with each other, as well as with surface water.

[9] See paragraphs 67 to 96 of the appellants' submissions.

74. Ultimately, the disagreement about the precise point of entry of groundwater into the streams is of no moment, because the issue is not one of exactly how any connection occurs, but a much more fundamental issue as to whether surface waters and groundwater are connected, both generally in the relevant catchments, and specifically in the locality of the appeal properties.

75. On the evidence, the answer to that is unequivocally in the affirmative.

(b) impact of pumping the additional allocations - local

76. Again, superficially, the experts were a long way apart on this issue, not least because of the adoption of quite different 'models' to attempt to assess the impact, with Dr Evans favouring an 'analytical' model, while Mr Smith favoured a 'numerical' model.

77. In relation to this issue, there are really two questions. The first is the relatively objective factual question as to what impact pumping the allocation sought would have on surface water flows or other groundwater users. The second is the more subjective and evaluative question, which is ultimately one for the court rather than a matter for expert opinion evidence, as to the significance of those impacts having regard to the relevant legislative scheme, and whether those impacts are or are not of a sufficient magnitude to militate against granting the allocations sought.

78. In relation to the first question, despite the adoption of different models which had noting in common at all, the experts were again quite close.

79. Dr Evans concludes that the impact of pumping the allocations sought will be:-

(a) for Gallo, a reduction of 2.2 megalitres per day in stream flow in Leslie Creek, which is 10% of the median stream flow in the driest part of the year (October/November);

(b) for Williams, a reduction of 1.4 megalitres per day in stream flow in Peterson Creek, which is 42% of the median stream flow in the driest part of the year.

80. Mr Smith's conclusions are not quite as easy to identify, because nowhere in his evidence does he assess the impact of pumping 990 megalitres per annum for Gallo or 750 megalitres per annum for Williams.

81. He presents the Court with numerical models B and C, both of which are, so Mr Smith says, equally likely to be a correct interpretation of the field data, Mr Smith favours Model C because he believes it to be more consistent with his own observations. The problem with that preference is that Model C only 'adds up' if one adopts a much higher value for aquifer recharge through alluvium surface soils as compared to Model B. However, one of Mr Smith's fundamental premises was that the alluvium soils are impermeable to water, and act as a barrier to any interchange between groundwater and surface water. So, his preferred model is inconsistent with one of his basic premises.

82. Logically, if one were to follow Mr Smith's approach otherwise, the better choice between the two models, neither of which is inherently more likely that not to be correct in a mathematical sense, is Model B which is more consistent with the premises on which Mr Smith proceeds.

83. In any event, the results from Model C which Mr Smith prefers differ from those in Model B because of an assumption made that Leslie Creek is 'shielded' from Gallo bores by non-conductive alluvium. However, this is Mr Smith's own fundamental premise, so it is not surprising that a model which adopts his basic premise as an assumed parameter produces results more consistent with that premise. It is not an exercise which is capable of giving any proof to the premise on which it is based.

84. One may pause to mention that while the connection between groundwater and surface water is not in the end a matter of any real dispute, them ore specific contention that Leslie Creek is 'shielded' in the way assumed for Model C is shown by the evidence to be factually incorrect in the vicinity of the Gallo property. Exhibit 40 shows a basalt rock bar which breaks through the alluvium to the creek, meaning that the basalt aquifer, downstream of the gauging point on Leslie Creek, is in contact with the creek. Dr Evans explained why groundwater discharge would readily occur downstream of the outcrop where there is a significant drop in creek level.

85. Under Model b, and while differences remain, Dr Evans shows in his response report (Exhibit 28) that those differences are not fundamental and that Model B and Dr Evans' model both predict substantial impacts on surface water flow in the creeks if the applications are approved.

86. The Court must act on evidence and must make findings on the balance of probabilities. On the evidence, the more likely than not position is that the impacts will be of the order assessed by Dr Evans, and apparently confirmed, at least broadly, by Mr Smith's Model B.

87. Moreover, all of this discussion is overlayed by the simple propositions that:-

(a) the Appellants carry the onus to prove their case on the balance of probabilities;

and

(b) Mr Smith accepts that that neither model B nor model C is more or less likely than the other to be a correct interpretation of the base data;

(c) therefore, <u>on the Appellants' own case</u>, neither model is more likely than not to reflect an accurate or correct conceptual model of the groundwater system in the relevant locality.

88. Whether the impacts are significant enough to warrant refusal of the applications is a matter for the Court. The Respondent submits that depletion in total (median) stream flow of 10% and 42%, at the driest time of the year when water security is at its most vulnerable, speaks for itself as being unacceptable.

(c) impact of pumping the additional allocations - downstream to the dam and beyond

89. Mr Smith's view that recharge in each wet season 'resets the hydrological clock' so that additional groundwater extraction does not cause any loss of water for downstream users and environmental flows is inconsistent with the objective evidence which shows decreasing groundwater levels after the wet season over time, in an environment where groundwater extraction is increasing over time.

90. Approval of the applications will, assuming pumping at the full entitlement, cause a reduction of 1,315 megalitres per annum in the stream flow from Leslie and Peterson Creeks into the Tinaroo Falls Dam downstream.

91. This is in a context where water entitlements are at a level such that 71% of the water which would have flowed down the Barron River below Tinaroo Falls Dam before irrigation development is now allocated for use, including for irrigation, either from the dam or by upstream surface water and groundwater licensees. The catchment is, on any view, already very heavily allocated.

92. In terms of assessing whether this in an impact warranting refusal of the application, relevant considerations are:-

(a) no further irrigation allocations are available from the dam, indicating that it has no 'spare capacity' which it can afford to lose without impacting on the security of those who do hold entitlements to irrigate form the dam - in other words, the water which the Appellants wish to take is in a relevant sense already allocated to others;

(b) the Water Allocation Security Objectives and Environmental Flow Objectives would be compromised if existing entitlements were fully utilised, meaning that there is already a potential water management issue which may require difficult decisions in the future about limiting use of existing allocations;

(c) the granting of the large allocations sought would exacerbate those difficulties.

93. That those are the facts may mean that, with hindsight, some existing licence holders have received greater entitlements than they would have received if better knowledge had existed at the time. However, that is no warrant for granting further allocations which would further exacerbate an already unsatisfactory position. If that stance means that later applicants 'miss out' as compared to earlier ones, that is unfortunate at the individual level, but is a necessary outcome in order to achieve the purposes of the Water Act which are about the long term sustainable use of water in the overall public and environmental interest, and not about conferring some kind of 'right to own water' on particular individuals, ether generally or merely because some other individual has previously secred such a 'right'.

(e) aspects of Mr Smith's evidence

94. There are several aspects of Mr Smith's evidence which, it is submitted, will make the court wary of accepting his views to the extent that there is a conflict between Mr Smith and Dr Evans which needs to be resolved:0

(a) His primary report, (Exhibit 19) purports to provide opinions based on pumping of 742 megalitres per annum by Gallo and 400 megalitres per annum by Williams, but those figures correspond neither with the allocations sought, nor with Mr Sutherland's figures for volumes which could be efficiently used - these figures are repeated through the report and again in his response report (Exhibit 20) and, in that sense, Mr Smith has not dealt with the case before the Court at all;

(b) Similarly, Mr Smith tells the Court that his analysis is focussed only on '*the potential impact of increasing the Appellants groundwater allocation on local surface and groundwater resources*', meaning that his inquiry is much more narrowly focussed than that which the Court must undertake by virtue of a combined reading of ss 10, 12 and 210 of the Water Act and ss 11 and 51 of the BWRP - Dr Evans evidence deals with the full spectrum of relevant issues;

(c) Similarly, and despite s 51(2)(d)), Mr Smith was not even briefed to consider any cumulative impact issues;

(d) It remained a fundamental premise of Mr Smith's analysis, even thought his preferred model indicated otherwise, that there is no connection between groundwater and surface waters in the vicinity of the subject properties, a premise which is objectively demonstrated to be wrong in fact by the 2008 field program results;

(e) There was at least one major error on Mr Smith's interpretation of geological mapping in that he proceeded on the basis that a large outcrop of (impermeable) Hodgkinson's formation existed west of the Williams property, whereas all the mapping indicates (much more permeable) basalt;

(f) Mr Smith appeared in his primary report to place some reliance on the concept of 'perched aquifers', a concept not previously raised in any of the joint meetings, but retreated from placing any specific reliance on their existence under cross-examination, accepting that they are at most a temporary water source during the wet season;

(g) In discussing, under cross-examination, the general principles adopted by Dr Evans, Mr Smith agreed that Dr Evans had approached 'sustainability' consistently with the way in which that term is used in existing legislation, but indicated that his view was that such definitions will have to change - a viewpoint which is of no assistance to this Court in interpreting and applying the existing Water Act.

(f) conclusion on hydro-geological issues

95. The ultimate questions to which this evidence is directed are two of those identified above:-

(a) Will the granting of the licences be likely to have a direct adverse effect on surface water flows? (BWRP, s 51(2)(c));

(b) What will be the cumulative impact of the granting of the licences on subartesian water, on surface water flows and groundwater flows? (BWRP s 51(2)(d))

96. One the evidence, it is submitted that the clear answers are:-

(a) Yes - to the extent of reducing total (Median) stream flow in Leslie Creek by 10% and in Peterson Creek by 42%, at the driest time of the year when water security is most vital;

(b) The cumulative impact will be to further reduce water security for the holders of existing entitlements downstream and further reduce the likelihood of meeting Water Allocation Security Objectives and Environmental Flow Objectives, both of which are already under threat if existing entitlements were to be fully utilised."

[39] In addition to the analysis provided by Counsel of the hydro-geological expert evidence, Mr Smith and Dr Evans provided useful summaries of their evidence as part of their reports. Mr Smith's summary is found at pages 15 and 16 of Exhibit 19 and is in the following terms:

> "**5. SUMMARY & CONCLUSIONS**
>
> In order to better understand the variable hydrogeological parameters which control groundwater availability and groundwater / surface water interaction, I decided to prepare a steady state numerical MODFLOW model.
>
> In the normal course of events, I would have anticipated that the Department would have prepared a suitable model to allow it to determine appropriate groundwater allocations for Area B. This did not occur and consequently for the purpose of these proceedings I was obliged to independently prepare a groundwater model at the Appellants expense.
>
> The model was prepared and run as a cooperative venture between Waste Solutions Australia Pty ltd (WSA) and Dr John Doherty of Watermark Numerical Computing (WNC). The first phase of any modelling project involves the preparation of a conceptual model which includes the local geology, any existing groundwater and relevant surface water information as well as climatic and land use data. The main aquifers in the area are the Quincan aquifer, the vesicular and fractured rock aquifers located within the surrounding basalt and the temporary perched aquifers. There are aquifers within the underlying basement rocks that do not play a significant role in the groundwater regime around the Appellants properties. Mr Gallo's production bore is located in the Quincan aquifer while Mr Williams' bore extracts its water from within the basalt.
>
> The highly fractured nature of the formations in the area mean that it is likely that all aquifers within the basalt and the Quincan aquifer are hydraulically connected. Shallow perched aquifers (which are isolated from the underlying major aquifers) occur in the area. The numerical model includes the main aquifers but not the perched systems.
>
> Pump rates of 742ML/year for Gallo and 400ML/year for Williams were used for model predictions. These values were estimates of required water amounts for each property suggested by Gilbert and Sutherland Pty Ltd. These pump rates included their current groundwater allocations.
>
> The effects of pumping the Gallo and Williams bores on groundwater levels and creek flow at the rates mentioned above (742ML/year and 400ML/year respectively) were predicted using the appropriate model. For groundwater levels within the respective aquifers, drawdown in water levels of greater than 1m are predicted to occur within a radius of 300-500m of each production bore. Outside of that zone, drawdown in groundwater levels is predicted to quickly decrease.
>
> As to the reduction in stream flow, the pumping by Williams' production bore is predicted to extract 7.4L/s from Peterson Creek and the pumping by Gallo's bore is predicted to extract 2.8L/s from Leslie Creek. The total surface water usage from existing licences for the model area may vary between 5674 and 7232ML per year (or 361 - 460L/s based on a 6 month pumping cycle). A comparison of these extraction rates shows that the amount of water predicted to be extracted by Gallo and Williams is minute in comparison to the amount of water being extracted by surface water licence holders. The limited reduction in surface water flow caused by the groundwater extraction of Gallo and Williams will have no adverse impacts on downstream users or the environment.

It should be noted that although the steady state model predicts a small reduction in groundwater inflow to the creeks/rivers, there is no evidence that there is a hydraulic connection between the surface water flowing in Peterson and Leslie Creeks and the groundwater underlying these sites in or close to the Appellants properties. Indeed all testing to date (hydraulic testing, tracer tests and soil descriptions) supports the view that there is no or very limited hydraulic connection. Hence, the model results would be viewed as being conservative.

Because of the high rates of recharge and the short residence time in the aquifers, it is accepted that infiltration from an average wet season will replenish the Qunican and basalt aquifers irrespective of how low the groundwater levels are at the end of the previous dry season.

DERM has precluded the granting of any more groundwater allocations or the increasing of any existing allocations within the area of interest with the exception of those currently within the judicial system. This current case concerns the final two applications for additional groundwater allocations that are to be decided in this area. Hence, this case is to assess the potential impact of increasing the Appellants groundwater allocation on local surface and groundwater resources.

Based on information available and the investigations undertaken, the groundwater pumping by Mr Gallo (742ML) and Mr Williams (400ML) will:

- Have no significant impact on groundwater level outside a radius of 300 - 500m; and
- Have insignificant impact on groundwater quality.

With regard to the impact on surface water supply to natural ecosystems, the numerical model and the physical investigations undertaken have confirmed that pumping by Mr Gallo will have an insignificant effect on the water flow in Leslie Creek. Any minor amounts of water that may be extracted from the Barron River will not have a significant impact on flow within this larger surface water system. Even though the numerical model predicts that some extraction of water will occur from Peterson Creek, the physical evidence suggests that the likely rate of extraction will be less and hence any detrimental effects on downstream ecosystems will be minimal.

If additional groundwater protection measures are deemed necessary, it is proposed that a groundwater and surface water monitoring program be instigated for the potentially affected areas surrounding the two Appellants properties, details of which would be agreed with DERM prior to any increased pumping occurring to ensure there are no adverse environmental impacts."

[40] Dr Evans' conclusions are found at pages 118-120 of Exhibit 27 and are as follows:

"**14. Conclusions**

The fundamentals of the water cycle dictate that when groundwater is pumped, there must an equivalent reduction in discharge (or increase in recharge) at some other point in that groundwater system to return the system to equilibrium over time. This simple scientific / mathematical truth is essentially the core argument of this Statement. In many cases, the discharge that is reduced is stream flow, such that eventually, the stream(s) will be depleted by the equivalent volume.

All previous studies that have examined the nature of groundwater - surface water interaction in the wider study area have concluded that there is a high degree of connection between groundwater and surface water in the Atherton Basalt, and that despite the presence of multiple aquifer systems with the Atherton Basalt, these systems are interconnected over time. The high degree of interaction between groundwater and surface water means that groundwater extraction will directly impact on stream flow. Evidence for the high degree of interaction includes:

1) Spot stream gauging commissioned for this appeal indicate in part hydraulically neutral and in part gaining flow conditions for both Peterson Creek and Leslie Creek, (including in close proximity to the Gallo and Williams properties). This demonstrates that there is local hydraulic connection between the groundwater and the creeks.

2) Baseflow separation of stream gauge data indicates that a high proportion (35-40%) of total flow in the Barron River, Leslie Creek and Peterson Creek is comprised of baseflow. For several months of the year, the streams are essentially entirely reliant on baseflow to sustain flows. This indicates that they are connected water bodies and hence their flows will be impacted by groundwater pumping.

3) Virtually all available pumping test data from the area indicate the presence of recharge boundaries or leaky aquifer conditions, including at the Williams and Gallo sites. This demonstrates potential for direct depletion of stream flow, or indirect depletion of stream flow via draining of the watertable aquifer.

4) Isotope samples in the groundwaters and surface waters of Leslie and Peterson Creek catchments demonstrate that during the 'dry season' the streams are predominantly derived from groundwater. The results support the conceptual model of a high degree of interaction between the groundwater and streams in the catchments.

5) Although alluvium overlies the basalt along parts of the streams, the alluvium is variable in grain size, thickness and extent and hence is not an effective low permeability aquitard (eg, as demonstrated by the groundwater contribution to Leslie Creek in the spot gauging results, along the stretch of river overlain by alluvium).

A water balance for Peterson Creek catchment shows that baseflow represents around 55% of total discharge, ET around 25% and down valley flow (ie, discharge to the Tinaroo Falls Dam) and groundwater pumping each approximately 10%. A water balance for the northern half of Leslie Creek catchment shows baseflow comprising 62% of total discharge, ET around 34% and groundwater extraction 4%. Therefore, for Peterson Creek catchment, discharge to water bodies (creeks plus the dam) is more than 2.5 times the volume of groundwater ET, and for Leslie Creek catchment discharge to water bodies is almost double the volume of groundwater ET. This suggests that groundwater pumping in the catchments will predominantly impact on groundwater discharge to surface water bodies, rather than ET.

Modelling of the two sites shows that the long term impact on the Leslie and Peterson Creeks from the proposed Gallo and Williams pumping will be a reduction in stream flow of around 80% and 70% of the extracted volumes. This represents a stream flow reduction of 2.2 ML/day and 1.4 ML/day in the Leslie and Peterson Creeks, equivalent to 10% and 42% respectively of median daily October/November stream flow (as measured in stream gauges over their period of record).

Even if it is accepted that the alluvial material separating the creek and aquifer will act as an impermeable clay 'blanket' (which I do not), the drawdown cone from the pumping will spread out until it can capture an equivalent volume of water (ie, to that being pumped) from elsewhere. In the case of Leslie Creek, this will most likely be from the Barron River, only approximately one kilometre west of the Gallo production bore. In the case of Peterson Creek, this is only several hundred metres west of the proposed Williams bore, where the alluvium is absent, and more permeable soils separate the pumped aquifer from Peterson Creek.

This SOE has demonstrated that the principal groundwater dependent ecosystem (GDE) that will be affected by the additional pumping form Gallo and Williams is stream baseflow. In addition it is possible that terrestrial vegetation may also be affected.

The groundwater pumping will also impact on neighbouring bores - around 2-3m drawdown for the closest neighbour to Gallo, and around 3-4m for the closest neighbour to Williams. This impact could be significant.

The environmental flow objectives specified in the BWRP specify the minimum pattern of river flows that need to be maintained in the river in order to meet environmental water needs. The volume of water that is surplus to these environmental needs is that which is available to the holders of water authorisations. The WASOs specified in the BWRP are a measure for the protection of the probability of being able to obtain water in accordance with a water allocation. If stream flows were to be reduced due to increased groundwater use, it would mean that a reduced volume of water would be available to meet the needs of water allocation holders and this would mean a reduced probability of water allocation holders being able to obtain water under their water allocation. The BWRP has effectively stated that further reduction in the EFIO and WASO are not acceptable.

This statement has shown that the granting of the additional entitlement of 990 ML/yr to Gallo and 750 ML/yr to Williams would have a significant further reduction in stream flow and hence would have the potential to undermine the objectives of the BWRP. The long term impact (i.e. reduction) on stream flow have been assessed to be around 790 ML/yr and 525 ML/yr for Leslie and Peterson Creek catchments respectively.

The IQQM shows that only 29% of the mean annual pre-development flow now actually flows below the TFD. This is directly a result of the construction of the TFD, the Mareeba Dimbulah Water Supply Scheme (MDWSS) and the groundwater and surfact water use in the Upper Barron Catchment. This is a major reduction in river low and maintaining the remaining environmental flow below the dam and also the security of supply to existing surface water entitlement holders below the dam is a key requirement of the BWRP. Even with the plan, the security of supply of the MDWSS for medium priority water allocation holders, the WASO (schedule 6, Part 1 of the BWRP) requires an annual reliability of at least 75% and a requirement for the extent to which the annual reliability is less than 80% to be minimised i.e. on average one year in five the water users will not receive their full entitlement.

In order to ensure that this WASO performance can be achieved, the BWRP does not allow any further water allocations to be made available for the MDWSS. As such, the yield available form the dame is fully allocated. Accordingly, reductions in flows into the dam will not only affect the spills from the dam but will incrementally affect the availability of water to water allocation holders supplied from the dam. This statement shows that the granting of further groundwater licences upstream of the dam would put further stress on the downstream water needs and would potentially impact on the BWRP objectives.

> Total potential impacts of additional groundwater use since the IQQM cut off date of 1995 amount to 2,053 ML/yr (137 ML/yr of delayed impacts from pre-1995 pumping plus 1,916 ML/yr from increased potential use over the period 1995 to 2008). This represents a 350% increase in groundwater induced impacts over and above what is embedded in IQQM (i.e. 451 ML/yr).
>
> The BWRP aims to 'draw a line in the sand' with respect to what is an acceptable impact in terms of the security of supply for existing water users and the environment. Hence the approval of either, or both, the Gallo and Williams applications would potentially impact (and actually impact if the entitlement is used) on BWRP objectives."

Conclusions of Hydro-geological issues

[41] When a close examination is had of the joint expert report of Dr Evans and Mr Smith,[10] it is clear that there are a significant number of areas of agreement between the two hydro-geological experts. There are, however, a number of areas of disagreement. Unfortunately, as each expert adopted a different methodology to underpin their analysis of the hydro-geological features of the relevant parts of Area B, some of the distinctions between their evidence can be attributed directly to the different methodology.

[42] When everything is pared back to its most basic features, some clarity begins to emerge. To begin with, it is without doubt that whenever a bore is drilled into an aquifer and water removed from that aquifer by way of pumping that there must necessarily be a groundwater impact as a result of that pumping. If that groundwater has any links to springs or underground streams or other measures by which such water emerges at the surface in either a spring, stream, lake, river or other feature, then it also follows that there must be some impact, even if only negligible, on that connection. Of course, if there is no connection (that is, the aquifer is retained in a below ground enclosure with no exit points apart from over-run when that aquifer is full) then the draw down of water by way of pumping through a bore must cause the level of the aquifer to fall, at least to some extent, until such time as that aquifer is replenished. I make these very simplistic observations, which are consistent with the evidence of both Dr Evans and Mr Smith, simply to show that consideration of this aspect of the appeal is not a simple black or white answer, but rather a question of degree. Put simply, will the impacts that naturally follow a bore and pump being placed into an aquifer as proposed by Messrs Gallo and Williams cause impacts which fall within parameters of those which are acceptable to the long term

[10] See pages 20 to 37 of Exhibit 19 and pages 185 to 202 of Exhibit 27.

management of the water resources in Area B, or will the grant of either or both licence applications put Area B under an acceptable level of stress?

[43] Clearly, this issue is not without some doubt. The conclusions of both hydro-geological experts make that clear enough.

[44] Taking account of all of the evidence, I am satisfied that there is some inter-connection between the aquifers from which the water will be drawn and the surface waters in the immediate vicinity. However, I am not satisfied as to the extent of any such inter-connectivity. In my view, this remains a matter of scientific doubt. However, it is not my view that the scientific doubt is such as to preclude the making of a decision favourable to the appellants in this matter.

[45] Dr Evans relies upon increased water flows of both Leslie and Peterson Creeks to establish a connectivity between those creeks and the aquifer. Mr Smith accepts that there is an increased flow in both Peterson and Leslie Creeks when one considers data taken from four flow point measurement points along each creek. However, when Mr Smith draws down on the data for each segment of water flow for each creek, Mr Smith notes that the only points of increase with respect to Peterson Creek are between points 3 and 4, and for Leslie Creek between points 2 and 3.[11] Mr Smith provides what is in my view compelling evidence that the reason for the increased flow at those two nominated points in both creek systems is as a consequence of discharge from certain springs into those creeks. The existence of the springs referred to by Mr Smith is clearly evidenced by the photographs as set out at page 184 of Exhibit 19. While this evidence of itself does not disprove interconnectivity, and indeed I am not aware of evidence that shows the origins of any of the springs as depicted in the photographs, nevertheless such evidence does show that for a large proportion of both creeks within the four points of the flow study area for each creek, there is no loss of water from those creeks into an underlying aquifer as the flows remain stable, nor is there any increase in the flows from a below ground water table that is not evident apart from the springs as shown in Exhibit 19.

[46] When questioned by Mr Sheridan as to issues relating to the volume of groundwater pumping and the reduction of evapotranspiration, Mr Smith made the following important observations:[12]

> "… if we didn't have seasonality, in other words, it rained the entire time and we didn't have period of increased evaporation, then much of what Dr Evans is saying I

[11] See Transcript 1-45.
[12] See Transcript 1-52.

> agree - I - I agree - I would agree with. In this situation, however, where we have a marked wet and dry season, we have significant rainfall in the wet season followed by less rainfall in the dry season - not nil, but still less - we have a seasonality. So, we talk about here the - the topping-up of the aquifers, in other words, when we're pumping, when we're creating these cones of depression we will - we may impact with certain surface waters or spring systems, or whatever else, but by the end of the wet season there's sufficient water to top all those system up, so we reset the clock is the words we've used."

[47] I note that, in accordance with s.10(2)(vi) of the *Water Act*, one of the purposes of the *Water Act* is to provide for sustainable management of water by "providing for the fair, orderly and efficient allocation of water to meet community needs". This is a topic which I will examine further, for other reasons, later in this decision. However, for present purposes, there are a number of factors relevant to my consideration of the hydro-geological evidence which I take into account. In particular, I note that both the Gallo and Williams' applications, as matters currently stand in light of the moratorium notice, will be the final water licences to be granted in Area B should my ultimate finding be that it is appropriate to grant both licences. Dr Evans is concerned about the cumulative impact of groundwater pumping. In this regard, he makes specific reference to s.51(2)(d) of the Barron Water Resource Plan.[13] Dr Evans refers to this issue as 'the tyranny of the small decision'. In the joint expert report, he describes such tyranny as follows:[14]

> "The case largely revolves around the concept of 'the tyranny of the small decision'. While the individual licence applications in this case may be modest in the context of the water budget of the Barron River catchment, the water resource objectives of the Barron WRP will not be achieved if the concept of the 'tyranny of the small decision' is not accepted. That is, a 'line in the sand' has to be drawn at some point, otherwise the Plan will be gradually be eroded by incremental increases in additional groundwater extraction."

[48] As the responsible Minister has effectively drawn "a line in the sand" by pronouncing a moratorium on the grant of any future water licences in Area B, in my view Dr Evans' concerns regarding the tyranny of the small decision are overstated.

[49] I further note the comments by Mr Sutherland in his report[15] at pp 3-3 and 3.5 where he says:[16]

> "Furthermore, the information required by the Respondent of the Appellants is significantly more than all of the other applications that were determined by the Respondent, before and after the Appellant's applications were lodged. This is particularly true given the requested allocations are proportionately small (0.08% for Gallo and 0.05% for Williams) in comparison with the total available water within this catchment. [5]

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13 See Joint expert report, Exhibit 19 page 34.
14 Ibid.
15 Exhibit 21.
16 At 310-315 and 329-338.

…

> Indeed, the amended Water Resource Plan (November 2009) indicates the outcomes of these last two allocations will have no adverse consequence to the plan. The discussion document states:
>
> > The final Plan provisions include a new Part 10 which ensures that the plan is able to accommodate any decisions or rulings relating to several licence application appeals that are currently subject to judicial proceedings.
>
> Therefore, the Appellants' desired allocations have already been accommodated by the Respondent and will not affect the plan's implementation. In these circumstances I find the Respondent's approach in these appeals, hard to reconcile."

[5] Estimated by the Federal Department of Environment, Water, Heritage and the Arts using a calibrated IQQM model to be 998,000ML per annum mean annual flow. "

[50] In my view, doubts that arise due to the scientific uncertainty as regards the hydro-geological evidence can be met by the institution of an appropriate groundwater and surface monitoring program as suggested by Mr Smith.[17]

The efficiency of the use to which allocated water is proposed to be put

[51] With respect to this aspect of the case, the Court had the advantage of expert reports of Mr Sutherland (called by the appellants) and Dr Watts (called by the respondent) with respect to the efficiency of proposed water use practices for water allocations.

[52] Having considered all of the evidence of Dr Watts and Mr Sutherland in detail, I am satisfied that appropriate cropping plans have been formulated which represent the full utilisation of the properties for realistically achievable agricultural production. This aspect of this issue has been essentially conceded by the respondent.[18] The key dispute between the parties essentially comes down to a matter of mathematics in determining the actual allocation that should be made with respect to each applicant.

[53] There is no dispute between the experts that the irrigation requirements for the respective properties at full agricultural production are 1,303 megalitres per year with respect to Gall and 515.2 megalitres per year with respect to Williams.

[54] As regards the Williams' application, the final conclusion is straightforward. The Williams' property does not currently have any existing irrigation entitlements. Accordingly, I am satisfied that the Williams' property could make efficient use of 515.2 megalitres per annum fully utilised for appropriate agricultural uses.

[17] See Exhibit 19 page 16 final paragraph.
[18] See Submissions of respondent paragraphs 97 and 98.

[55] The matter is somewhat more complex when one considers the Gallo property. I am persuaded by the submissions for the respondent as set out from paragraphs 101 to 116 of his submissions. Starting at a point of an appropriate allocation for Gallo being 1,303 megalitres per year, it is appropriate to deduct from that amount the existing groundwater irrigation licence number 183639 of 61 megalitres per annum.[19] I am also satisfied that, in accordance with s.45(2)(b)(ii) of the BWRP, the current surface water entitlement enjoyed by Gallo over an area of 98 ha equates to a volumetric entitlement of 980 megalitres per year. By these calculations, the amount of water which Gallo could use to fully irrigate the arable areas of their property amounts to 262 megalitres per year (1,303 minus 980 minus 61). Although this amount is an apparent reduction of 490 megalitres from the amount (813 megalitres) that Mr Sutherland considers appropriate, I agree with the respondent that, when the amount of 61 megalitres under the existing entitlement is taken into account, as well as a further 98 ha at 5 megalitres which equates to 490 megalitres which is essentially an unneeded source arising from the 98 ha current volumetric entitlement) the amount of 262 megalitres is again arrived at. Although this approach may seem quite limiting to Gallo, in my view it is the correct, conservative approach to be undertaken when considering the question of the appropriate use of water in accordance with the *Water Act*. It is undoubtedly a conservative approach, but an approach which in my view is appropriate considering the legislative considerations that I am compelled to take into account.

[56] Counsel for the appeallants contends that the allocations that I have set out above, whilst consistent with the legislative principles, are manifestly unfair when the appellants Gallo and Williams are considered alongside all previous applicants for water licences in Area B who had their licences granted on the basis of 5 megalitres per hectare of the total area of their land as opposed to the requirement to only consider 5 megalitres per hectare of land suitable for agricultural production. I agree that, on the face of the matter, this is manifestly unfair. As Counsel for the respondent put it in their submissions[20] "if that stance means that later applicants "miss out" as compared to earlier ones, that is unfortunate at the individual level, but is a necessary outcome in order to achieve the purposes of the *Water Act* which are

[19] See Exhibit 44.
[20] At paragraph 93.

about the long term sustainable use of water in the overall public and environmental interest …". This matter is subject to further discussion later in these reasons.

Proposed water use practices

[57] The respondent has sought to make great mileage out of s.51(2)(b) of the BWRP. As examined earlier in these reasons, when making a decision on an application for a water licence under the BWRP, the decision maker must have regard to, amongst other things, "the efficiency of the **proposed** water use practices" (emphasis added). As Counsel for the respondent submitted:[21]

> "**119.** Something is 'proposed' if there is a specific intention to do it which has been overtly declared in some way so that it can be said, objectively, that it is something which the proposer in fact intends to do.
>
> **120.** The *Shorter Oxford English Dictionary*, for example, defines 'propose' (verb) as:-
>
> '*1. Put forward as a scheme or plan, suggest (a thing). Also, intend, resolve (on), purpose*
>
> *2. Put forward or present for consideration, discussion etc; advance, propound, posit*
>
> *3. Exhibit or display to view or perception;*
>
> *4. Present or offer for acceptance or assent'*
>
> **121.** In *de Tournouer*, the appellant filed because she failed to produce to the court satisfactory evidence about what it was that she in fact proposed to do with the water allocation sought if it were granted."

[58] The question then remains to be asked: what are the **proposed** water use practices of Gallo and Williams? I have already set out the differences in Part F of the applications of Williams and Gallo, noting that Williams has provided answers to all relevant questions asked of them in the respondent's form relevant to their proposed use of the water obtained via the water licence if granted. The information provided by Gallo in Part F is scant at best. I have already quoted from the Court of Appeal decision in *De Tournouer*, and in particular from the reasons of Fraser JA. There is no need to repeat the reasoning of Fraser JA as to the requirement for an applicant for a water licence to demonstrate the proposed use to which the water is to be put. McMeekin J also made useful statements as to evidence of how water is proposed to be used. His Honour had this to say:[22]

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[21] At paragraphs 119 - 121 of their submissions.
[22] De Tourouner, Court of Appeal, paragraphs 38, 39 and 43.

> "[38] **McMEEKIN J:** I have had the advantage of reading in draft the reasons for judgment of Fraser JA. He has comprehensively set out the relevant legislative provisions and issues. As his Honour demonstrates there was no meaningful evidence led of how the allocation sought was to be used.
>
> [39] Essentially the arguments to this court and the court below were two-fold. First, it was contended that the question of the use of the water was a subsidiary issue. I cannot see shy. There is nothing in the legislation or logic to suggest that it is.
>
> …
>
> [43] The applicant is no more entitled to succeed in the absence of evidence of proposed use, and demonstrated efficient use, than she would be if she had failed to show there was nay water there. Both are essential requirements under the Act."

[59] Given the differences in the Gallo's and Williams' applications in Part F, I was hesitant to accept the legal representatives' assertions that there was no evidence of the proposed use of the water with respect to Gallo or Williams. I have painstakingly read and reread the exhibits and the transcript in this matter. With respect to Gallo, although there is clear evidence of what can theoretically be produced on the land by use of the proposed water allocation, there is a lack of any evidence as to the proposed intentions of Gallo, save for the scant reference in Part F of the application which, applying the reasoning from De Tournouer, with which I respectively agree, is simply not sufficient. I note that in Exhibit 21, which is the expert crop water resource and groundwater allocation report prepared and submitted on behalf of the appellants, Mr Sutherland has this to say at paragraph 4.2 on page 4-5 of Exhibit 21:

> "It is **anticipated** that the irrigated cropping regime would be based on annual crops such as potato for fresh vegetable sale, maize for haveststore fodder and improved pasture (rye grass/clover) for dairying" (emphasis added)

[60] The inescapable conclusion I reach from an analysis of what Mr Sutherland had to say in his report is that his analysis as regards the Gallo property is entirely hypothetical. No doubt, as the Gallo property already receives water entitlements, the Gallo application may simply have been taken as being an extension of the irrigation practices already undertaken on the property. However, that is nothing more than a supposition on my part, and there is simply nothing in the evidence to adequately explain the proposed use of water from the licence applied for.

[61] Mr Sutherland's evidence in his report as regards Gallo is even more telling when an examination is had of his report with respect to the Williams' application. At page 4 - 5, part 4.2 of Exhibit 21, Mr Sutherland states that:

> "It is **proposed** that any groundwater allocation granted would enable the development of irrigation areas based on low pressure boom supplemented by small areas of fixed sprinkler irrigation infrastructure (especially associated with the high intensity crop and pasture irrigation area). It is envisaged that the irrigated cropping regime would be based on annual crops such as **potatoes**, **maize and improved pasture** (rye grass) plus a longer term improved pasture (four year period)."

In my view, the use of the word "proposed" by Mr Sutherland is not accidental; it shows an appreciation of an actual purposeful intent of Williams. This is exemplified by reference to the crops potatoes, maize and pasture, which of course are entirely consistent with the Part F statement of irrigation requirements for "potatoes, pasture, and grain".

[62] It is unfortunate that Mr Richard Williams did not include any reference to the proposed use of the water in his statement[23] or oral evidence. I have already noted that Mr Williams was not cross-examined as to the contents of Exhibit 1.

[63] For completeness, I should note that in the report of Dr Watts,[24] Dr Watts sets out, at page 3, part 5, his sources of information. It is indeed curious that his sources of information do not include the actual applications for water licences as set out in Exhibits 1 and 3.

Evidence of Mr Ewan Bell

[64] Mr Bell provided a statement to the Court[25] as well as oral evidence. Significantly, between June 2001 and April 2010, Mr Bell was employed in the Mareeba office of the Department of Environment and Resource Management as a hydrologist, senior natural resource officer, and leader - water resource management. At the time of giving evidence, Mr Bell remained employed by DERM as a senior environmental officer in the Maroochydore office.

[65] Clearly, the principal purpose of the respondent in providing the statement of Mr Bell was to respond to the statement of Mr Richard Williams.[26] Broadly speaking, there is not a significant amount of inconsistency between the statements of Mr Bell and Mr Williams. The specific area of inconsistency relates to whether or not Mr Bell informed Mr Williams that "all applications must be assessed against criteria for deciding water licence applications that were defined in the *Water Act 2000* and the Barron Water Resource Plan".[27] I note that it is Mr Bell's evidence that

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23 Exhibit 22.
24 Exhibit 29.
25 Exhibit 48.
26 Exhibit 22.
27 Exhibit 48 paragraph 7.

he cannot specifically recollect the telephone conversation with Mr Williams.[28] Mr Williams, on the other hand, "had this telephone call logged in my phone diary identifying the date of the call".[29] As regards the specific recollections of Mr Williams compared to the lack of recollection of the actual telephone call of Mr Bell, I prefer the evidence of Mr Williams over that of Mr Bell. However, for reasons which will become obvious in my further analysis of Mr Bell's evidence to follow, I make the specific finding that Mr Bell did not set out in any way to mislead the Court with respect to his general recollections. Mr Bell has an honest recollection of the general nature of the telephone discussions that he had over a lengthy period of time with numerous applicants for water licences. He simply has no recollection of the actual telephone call with Mr Williams. I make no adverse findings as regards his credit with respect to this aspect of his evidence.

[66] I now turn to examine the evidence given by Mr Bell during cross-examination by Mr Sheridan of Counsel on behalf of the appellants. Following are extracts of Mr Bell's evidence taken from the transcript between pages 5-60 and 5-67:

> "And this is not a test of statutory interpretation but one of it you said satisfied the decision criteria. Is one of the criteria efficient use of the water?-- Yes, it is.
>
> But there were no applications between 2002 and 2006 in the moratorium period where there was any assessment of the efficiency of the water use for applicants was there?-- No, I can safely say that there were no applications at all after the water resource plan had been released in 2002 that assessed the efficiency of proposed irrigation practises.
>
> But that's one of the criteria though?-- Yes, it is.
>
> …
>
> So, if they just told you for instance, I'm just using round numbers, if my - my farm's 100 hectares and I'm going to irrigate 100 hectares, there's my pump test, they were allocated 500 mega litres?-- That's certainly occurred, yes.
>
> And there was no investigation to see exactly what the irrigable area was?-- Not to any great detail. Many of those farms up there are probably - the maximum area probably could be irrigated. Yes, no, in answer to your question, there was no detailed investigation into the comparison of the area that had been applied for on the application and the actual area that was irrigable on the property.
>
> If there wasn't any investigation at all, a lot of the applications were dealt with on the basis of the area of the lot on plan, the title area?-- Well, the applications were dealt with on the information that was provided by the applicant. The applicant filled out the box on the application form that indicated what area they proposed to irrigate.
>
> …

[28] Exhibit 48 paragraph 4.
[29] Exhibit 22 paragraph 4.

And as I said before, in terms of efficiency, I - there were no applications that were - no licences were granted after the period of 2002 that specifically addressed water use efficiency.

So, well, we might save some time. So, no licences that were issued between 2002 and 2006 at the time of the moratorium?-- No licences issues since 2002.

To the present date, sorry?-- Yeah.

No licences that have been issued between 2002 and the present date have any assessment in respect of ----- ?-- Well, since I was in - they may have done since I've left the office. I don't think that licences have been granted in that period but -----

No, well, all right. We'd better make sure we're not confused. You left there in April 2010?-- Yep.

So you say that between the beginning of the Barron water resource plan in 2002 and April 2010, no licences have been assessed on the basis of water use efficiency?-- No licences in terms of the investigation report - no licence investigations, and the investigation reports specifically addressed the proposed water use efficiency on the property.

Except for these appellants?-- Not even those appellants. The original decision made on the appellant's water licence application did not do an assessment of the water use efficiency.

But they have provided that now?-- They have provided that in support of their appeal, but when the original decision was made on their licences, the proposed water use efficiency was not considered in their - in their decision either.

But that's a fundamental criteria for assessment, isn't it?-- Yes, it is. I don't disagree that it's an oversight and should have been addressed in - in all of those licence applications.

…

And there was no inspection, no property inspection to determine whether, in fact, there was any irrigable area?-- There were certainly property inspections carried out during the assessment process. I would be reluctant to say that I'm an irrigation expert and what land is irrigable or not irrigable. I took it on good faith, probably, that if the farmer had applied for water for an irrigable area, then that farmer was able to irrigate that area.

…

I'll give you a hypothetical example. Let's just say my entire property area is 10 hectares, I have five hectares of irrigable land, I make an application and say, 'I want five mega litres over - five mega litres over 10 hectares, you give me 50 hectares?-- Fifty mega litres.

Fifty mega litres, sorry. I should have only got 25. Does that make sense?-- Yeah.

…

Now, we just go back to the proposition. You understand now if I've got 10 hectares in total, you give me 50, I'm only irrigating five, I should only have got 25, so there's 25 mega litres that should be still in the bucket that is over here. Do you understand that?-- Yeah, absolutely, yeah.

Yes. So when you keep doing that over a period, as we understand it, right up until you left in April, can you see how this over allocation and continued the cumulative effect of this over allocation because the plan hasn't been - because applications haven't been assessed according to the plan, eventually the bucket's empty and the people at the end, D and R says, oh, we're worried about the bores, we're worried about the resource, we're worried that we've run out of water, which may or may not be right, but the reason for the panic and the moratorium and the reason for the running out of water is that all these people down here have got much more than they should have. There's water that's allocated down here and misallocated that had it been allocated properly would be still available up here for the people at the end of the line. Do you understand that proposition?-- I understand that completely, yeah.

Do you agree with it?-- I agree with what you're saying. I guess the main reason for the moratorium was not the current level of abstraction out of the ground would assist them. The main reason for concern about long term sustainability and was a concern for deciding another 14 and a-half thousand mega litres that had been applied for.

But that doesn't change the fact that the people who had been-----?-- No, it doesn't.

…

Right. Now, do we know how much has - water has been since 2002? Has there even been any work done to, like, decide? You know, when these licences come up for renewal, aren't they supposed to be re-assessed or are they, as was put this morning, just rubber stamped?-- Renewal of water licences is primarily an administrative process and they are more or less rubber stamped through the - through the decision process, yeah.

But shouldn't the be assessed - shouldn't the efficiency of the use of water be assessed each time a licence is renewed, amended or re-instated?-- That's what the legislation requires.

But that's what you must do, isn't it? You've got to follow that?-- Yeah.

And that doesn't happen, they're rubber stamped?-- They do make assessments against those criteria when they do a renewal. Whether they come up with the idea that this licence has to be reduced or - or surrendered or cancelled as a result of the renewal process is another question.

Right. Okay. You've [indistinct] it, answer it. Is that what happens?-- I can't recall water ever been taken off a licensee through the renewal process. I can't say it never has. I cannot recall that happening.

But none of these renewals or reinstatements or amendments - the licences are renewed, none of them have been assessed for the efficiency of the water use either, have they, did you say?-- No.

So then, we get back to your recollection of the conversation doesn't really matter. What has actually happened is that all these licences that have been granted, amended, renewed, reinstated during this period from 2002 to 2010, none of the have been assessed properly, have they?-- All bar the efficiency of proposed water use practices, I would say that most of them have been assessed in accordance with the required criteria.

But, it says in the plan: 'The Chief Executive must have regard to the efficiency of the use of the water.'?-- Yeah.

'Must'. It's pretty ambiguous, 'must', isn't it?-- Absolutely.

Yes?-- It is a must do.

…

> I'll put it to you very simply. If you - if you agree that water usage sufficiency was a criteria that must be considered when dealing with the water licence, none of these water licences have been dealt with properly, have they?-- There's been no specific assessment of water use efficiency in any of the investigations into these water licence dealings.
>
> Yes?-- The efficiency, as I said, has probably been accepted that the five mega litres per hectare provides some kind of water use efficiency requirements, the limitations on the water that can be allocated over a certain area provides some efficiency over the water use requirements, and in addition that the majority of irrigation practices in this area are overheard irrigation systems, which are considered to be more efficient than flood irrigation or other irrigation practices in other irrigation areas.

[67] I was highly impressed by Mr Bell's honesty in the witness box. He made no attempt to mislead the Court or hide behind bureaucratic jargon. To the contrary, he answered all questions clearly, concisely, truthfully, and to the best of his ability, even when it was abundantly clear to him that the statutory provisions of the *Water Act* and the BWRP had not been followed.

[68] Mr Bell's evidence is also entirely consistent with the three volumes of material contained within Exhibit 43 relating to previous water licence applications in Area B dealt with by the respondent. Those three volumes of material, obtained by the appellants under freedom of information laws, clearly show a number of things. Firstly, I am in no doubt that between the years 2002 and 2006, and indeed according to Mr Bell's evidence to 2010, all applications, save for those which were assessed after the moratorium notice took affect (which includes the De Tournouer, Gallo and Williams applications) were assessed on the basis of 5 megalitres of water per hectare per annum being made available on the basis of the area of land applied for by the applicant without any real consideration as to whether or not the area of land applied for was wholly, or even party, in fact irrigable. Further, in some instances, water licences were granted even when on the clear face of the material before the respondent, the applicant did not only fail to indicate a proposed use for the water applied for, but actually stated that they had no current intention to actually use any of the water that may be granted pursuant to the application.[30] Despite this, and despite the clear requirements of the *Water Act*, such applications were also granted.

[30] In this regard, I refer specifically to the application of Mr Slape in Exhibit 43 where he clearly indicated that he did not intend to use the bore for irrigation but only wanted the licence so that he could pass it on in a future sale of the property. Nonetheless, the respondent granted Mr Slape's application.

[69] On the basis of the evidence before me as set out in the voluminous Exhibit 43 and the telling evidence of Mr Bell, I am in absolutely no doubt that applicants for water licences in Area B have had water licences granted which should not have been granted, either in total or in part, had the respondent applied the statutory regime to those applications. In short, rather than allocating the precious resource of water in accordance with the carefully worded provisions of the *Water Act* and the BWRP, the respondent has, in my view, quite inappropriately granted water licences on the basis of "the luck of the draw" rather than in accordance with the statutory processes. By the "luck of the draw" I mean this: had either the Gallo or Williams' application (and indeed De Tournouer for that matter) been considered prior to the moratorium being firstly administratively applied by the department in 2005 and ultimately properly applied by way of Ministerial Notice in 2006, then I am in absolutely no doubt that such applications, supported by test bore results, would have resulted in Gallo receiving an allocation of 990 megalitres as applied for, and Williams receiving an allocation of 750 megalitres as applied for. The question then falls to be asked: how does such a finding sit with the clear statutory provision of the *Water Act* in s.10(2)(vii) of a "fair orderly and efficient allocation of water to meet community needs"?

A question of fairness

[70] During oral submissions, Mr Hinson SC for the respondent had this to say:[31]

> "Your Honour, no issue arises in this case, in our submission, about fairness as between these appellants and others, or in respect of the way in which these applications were dealt with compared with or relative to dealings with other past applications, and we would respectfully adopt what your Honour said during Mr Sheridan's submissions on the 27th of September last year that this is a case of applying the legislation and not worrying about what happened to others."

[71] In other words, this is a classic case where the Court is called upon to administer law in accordance with the legal system, and not justice insofar as that term is understood by the community at large. Of course, the Land Court itself is a creature of statute, and can only exercise the jurisdiction given to it by statute; it is certainly not a commission of enquiry, and can only consider cases brought before it, on the basis of the evidence placed before it, in accordance with the relevant legislation.

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[31] See Transcript 7-3.

[72] As I have already repeated a number of times, the *Water Act* does contain a reference requiring "the fair orderly and efficient allocation of water to meet community needs". Is such notion of fairness one which the Court should take into account by looking at the water allocations in Area B of the BWRP as a whole, or should issues of "fairness" be restricted to a strict analysis of the two applications currently before the Court in accordance with the legal principles as clearly annunciated by both the Land Court, Land Appeal Court, and Court of Appeal in *De Tournouer*?

[73] Not surprisingly, Mr Sheridan for the appellants has a quite different view, which he expressed in his submissions as follows:[32]

> 22. Consideration by the Court of existing allocations in Area B is not only relevant, but mandated by s 201(1)(d) of the *Water Act* and s 11(2)(b) of the *Barron Plan*, quite apart from considerations of fairness and equity across all water users in Area B.
>
> 23. The evidence before the Court in respect of existing allocations present the Court with some difficulty. The Respondent has provided a short history of groundwater allocations in the Atherton Subartesian Area.
>
> 24. The Appellants submit a shorter history: Since the commencement of the *Barron Plan* not one authority to take subartesian water for irrigation purposes in Area B has been issued according to law.
>
> 25. This maladministration of the legislation has resulted in the complete failure on the part of the Respondent to create and maintain a system for the planning, fair orderly and efficient allocation in the subject Area B.
>
> 26. It follows that the maladministration conceded by the Respondent in this appeal has seriously compromised the ability of the Respondent to undertake the sustainable management of water, to establishing tradeable allocations and to provide for the continued use of all water entitlements.
>
> 27. The failures by the Respondent have not served the public interest, have destroyed the confidence of water users affected by the relevant legislation, have made a sham of community participation in the management process by the WAG.
>
> 28. The Court is left with numerous dilemmas as a consequence of the Respondent's maladministration and unlawful allocations:
>
> - How can the Court have regard to the continued use of existing water allocations, when the Respondent concedes and the responsible officer, Mr Bell, admits that none of the licences were issued according to law?
>
> - How does it deal fairly with these Appellants, who are the only people who have complied with the statutory requirements for providing information as to the efficiency of water use?
>
> - How does the Court reconcile the evidence that establishes that many applicants may have been granted irrigation allocations when they conducted no irrigation at all or for amounts in excess of the maximums set out in the plan?

[32] See appellants' submissions paragraphs 22-30.

- How does the Court deal with the future trading aspects of the water allocation, which is a continued use of the water where it appears many irrigators have been granted allocations in excess of what the law allowed and will in the future be able to trade that excess water for a straight capital gain and without any intention to make productive use of the water?

- How does the Court deal with the periodic adjustment of the nominal allocation in times of drought where the granting of an allocation on the basis of irrigable land would mean that these Appellants are prejudiced and those with existing excessive allocations would suffer no detriment at all?

29. The Appellants submit that it would not be fair nor equitable to dismiss these appeals on the basis that the allocations sought may somehow affect the continued use of existing water entitlements, when it is clear that the Respondent must, given the evidence that has now been ventilated in these appeals, revisit most if not all of the existing allocations in Area B and possibly (even though Area A allocations are not relevant to disposition of these appeals) Area A as well.

30. This reassessment must result in the reduction of some existing allocations and reducing the risk that these allocations may have an effect on existing allocations."

[74] Counsel for the respondent have indicated that they have been unable to find any direct relevant authority to the concept of fairness applying to the *Water Act*.[33] Counsel for the respondent did however refer the Court to the Court of Appeal case of *Ajana Park Pty Ltd v Mackay City Council*.[34] *Ajana Park* concerned a dispute about proposed conditions of development approval which required a developer to carry out certain road works with the practical effect that that particular applicant was required to bear the full cost of works which would be utilised by other developments and to which, under broad notions for fairness and equity, those other developments should desirably contribute. As Counsel pointed out, the statutory context for *Ajana Park* was somewhat different as it turned upon a proper construction and application of s.3.5.30(1) of the *Integrated Planning Act*. As Counsel submitted "unlike the present context, the relevant statute did not use the word 'fair', and the appellants attempts to persuade the Court of Appeal to interpret the IPA as imposing a distinct or over arching requirement of 'fairness' was unsuccessful".[35] Counsel went on to submit that the Court of Appeal decision in *Ajana Park* appeared to accept that the statutory test of fairness was not materially different from the common law test under which development approval conditions must "fairly and reasonably relate" to the particular development. Counsel further

[33] See supplementary submissions, paragraph 4.
[34] [2009] QCA 404.
[35] See respondent's supplementary submissions, paragraph 5.

submitted that, at least in that context, the Court of Appeal did not extend any notion of fairness as between the applicant and any past or future applicants who are not participants in the development application process under consideration.

[75] My attention has also been drawn by Counsel for the respondent to the Macquarie Dictionary definitions of fair which are:

> "[1] free from bias, dishonesty, or injustice: *a fair decision or judge*. [2] that is legitimately sought, pursued, done, given, etc.; proper under the rules:"

In the respondent's view, "the ordinary meaning of "fair" in the context of a decision-making process does not require that the outcomes of the process be identical for all persons whose applications may have some common element. Rather, it requires that the process follow a set of rules which are designed to achieve proper objectives, and which demonstrate no bias for or against a particular individual personally".[36]

[76] Not surprisingly, again Counsel for the appellants has a different view as to notions of fairness. In particular, Mr Sheridan referred the Court to the Land Appeal Court decision of *Moir & Anor v Commissioner of Water Resources*[37] where that Court had this to say at 130:

> " 'The licences were amended and renewed on September, 1991. They expire on the 31st of July 1994. This fact is stated in order to place some emphasis on the philosophy of the Act and its predecessor-the *Water Act 1926*. The provisions of the former Act were considered in depth by the Court in *Shooter & Others v The Commissioner of Irrigation and Water Supply* (1972) 39 CLR 11. At 17/18 the Court, in considering the duties of the Commissioner with respect to applications, stated that the legislation required that each application 'is fully considered, with the balances held fairly and adjusted equitably as between the applicant and other riparian owners who may be affected.' At 19, the court expressed some opinions as to the duties of the Commissioner on an application for renewal of a licence. These are-'Then, what a licensee gets under the Act is only a licence for a period. At the end of that period he must apply for renewal and the Act, as amended in 1964, clearly shows that renewal is not as of right. The Commissioner has many alternatives to renewal, and must consider the application to see if nay of the alternatives should be applied. One of the alternatives is refusal of the licence and others are reduction in amount of water or in the amount of land irrigated……It is true that there seems to be no right of objection to a renewal application, but I think the Statue plainly enough requires the commission to consider all the alternatives in the light of all requirements on the stream at date of renewal, including applicants desiring a share of the water. To do otherwise, to adopt the view that a licensee, once he constructs his licensed work, obtains a vested interest which should only be interfered with if he misuses it or is guilty of misconduct, so that he can regard his licence as something he can expect to be renewed as of right is again to put the clock back and revive the mischiefs in the repealed Act which the present Act set out cure'
>
> The duties as I read the Act continue for the term during a licence - see, for example, section 4.25. Whilst the Commissioner on the one hand has the onus of ensuring as

[36] See respondent's supplementary submissions, paragraph 9.
[37] (1992) 14 QLCR 125.

> best he may, a fair and equitable distribution of available water, the licensee on the other hand has the onus of ensuring that water allocated to him is used beneficially. Historically, a condition to that effect is contained in licences. The condition in the licences, the subject of this appeal, reads as follows - '2.200A The licensee, after installing the bore, shall to the satisfaction of the Commissioner beneficially use the water which is entitled to be withdrawn under this licence.' (emphasis added)"

[77] As Mr Sheridan puts it, it is "clear from this authority that the consideration of fairness is not just as to the appellant on the facts but also as between others, as in *Moir* 'other riparian owners'."

[78] In the context of considering issues of fairness, it is appropriate to also consider the provisions of the *Barron Resource Operation Plan 2005*, which provides at s.14 as follows:

> " 'This plan in implementing the Water Resource (Barron) Plan 2002 provides for the sustainable management of water by -
>
> (a) Allowing for the allocation of water and contributing to the fair, orderly and efficient allocation of water to meet community needs by-
> i. Detailing processes for dealing with unallocated water;
> ii. Granting authorisation for the management of, taking of and interfering with water; and
> iii. Establishing water allocations that are tradeable and separate from land.' (emphasis added)"

[79] Mr Sheridan then goes on to forcefully submit as follows:[38]

> "12. It is without question that the legislative framework provides for a consideration of fairness in the matters that are central to these appeals before the court. The legislative structure tops and tails the process for allocation by requiring fair, orderly and efficient allocation in management in the 'purpose' and in the implementation documents - the Operation Plan.
>
> 13. What is required of a fair, orderly and efficient allocation of water receives guidance from s 14 of the Operation Plan by addressing the 'process' of allocation, 'granting authorisations' and a view to 'future trading.'
>
> 14. It is therefore unsurprising to see a requirement in s 210 (1)(d) Water Act to consider 'existing water entitlements and authorities to take or interfere with water'
>
> 15. It should also be noted that s 210 (1) of the Water Act has as its object 'the application' to be assessed, which in this case is referring to each of the applications of Messrs Gallo and Williams. When considering those applications of Messrs Gallo and Williams the criteria for deciding them requires a consideration of 'existing water entitlement and authorities.' That can only be referring to the Respondent's decisions on the past applications made by other applicants.
>
> 16. The court is part of the process for dealing with unallocated water and granting authorisations for the taking of water that will eventually be tradable and separate from the land.
>
> 17. On behalf of the two appellants before the Court we submit that the process that was conducted by the Respondent was not fair, orderly and efficient.

[38] See submissions of the appellants in relation to fairness paragraphs 12-26 and 32-33.

18. We refer to the straw moratorium applied to them which had no basis in law and changed the rules for dealing with unallocated water part way through the process.

19. We refer to the delay in processing their applications to wait for a change in law.

20. We refer to the cost to these appellants in preparing their farm management plans when no one else was required to do so.

21. We refer to the fact that these are the only two applicants who have satisfied the requirements of the Water Act in relation to sustainable use of the precious resource.

22. We refer to the deliberate windfall gain given by the Respondent to others in the catchment.

23. We contrast the additional cost to these appellants in going to Court to establish these inequities.

24. We refer to the inaction by the Respondent which has powers to remedy the defects in its initial allocation process but has failed to do so.

25. We refer to the Respondent's failure to take into account matters that it is required to do so by law in the renewal of allocations.

26. We refer to the untenable basis that has been established to commence water trading.

…

32. The actions referred to above are the very matters that are required to occur in a fair, orderly and efficient manner and which in our submission clearly did not in conflict with the legislation.

33. The decision of the Court, in our submission, can avoid compounding these errors."

[80] In my view, it is appropriate to apply at least to some extent the notions of fairness when considering applications under the *Water Act* as submitted by Mr Sheridan. Clearly, the expectation of the legislative is that those administering the *Water Act* will do so according to law and that all applicants for licences under a particular plan for a particular area under the same legislative framework will be assessed and dealt with in essentially the same manner, and thus ensure a fair allocation of the precious resource of water. Sadly, in my view, the assessment of applications by the respondent with respect to Area B of the BWRP do not meet the basic principles of fairness as required by the legislation.

[81] In my view, it is simply not good enough to say that all applications still in existence after the introduction of the Ministerial Moratorium Notice have been dealt with in the same way. That begs the question as to why other applicants within Area B were not dealt with according to law, and why the Moratorium Notice was brought in in

the first place. The inescapable conclusion is that there had been too many allocations made within Area B that should not properly have been made according to law and the respondent 'moved the goal posts' with respect to those applications which it had not considered as at the time the **administrative** moratorium came into effect in 2005.

[82] There is a further fundamental aspect of fairness which must be mentioned. It is common ground between the parties that, under the *Water Act*, the Minister may, if circumstances warrant it (such as severe drought conditions) by notice restrict the amount of water that all licence holders are entitled to. In this regard, there is a clear link between the current applicants and those already granted in Area B. I will explain this by way of semi-hypothetical example. Suppose there is a licence holder XYZ who currently holds an Area B licence for 1,000 megalitres per year when in fact he/she only has 100 ha of irrigable land and therefore should have only received an allocation, at the very most (if all other provisions were satisfied) of 500 megalitres per year. Now, assume Williams is granted 515 megalitres per year as a consequence of this decision.

[83] Assume that, to conserve water, the Minister responsible for the *Water Act* at some time in the future applies a 50% reduction to all Area B licence holders. Williams will be reduced to 207.5 megalitres per year, while XYZ will be reduced to 500 megalitres per year, which is all that he was potentially legally entitled to in the first place. This is clearly not fair on Williams, yet the maladministration by the respondent of applications granted in Area B prior to the Ministerial Moratorium Notice lead to this very result. This outcome is clearly contrary to the intent of the legislation.

Conclusions

[84] Even in light of my very strong views as to the inter-relationship of the concept of fairness as between the appellants in this case and the prior applicants for water licences in Area B, nonetheless it remains my clear view that the plain and unambiguous provisions of the *Water Act* as to the fundamental criteria which applicants are required to meet including, importantly, details of the applicants' proposed use for the water, **MUST** be applied according to the legislation. It would have been a simple matter for the Gallo applicants to have properly completed Part F of their application. They failed to do so. It would have been a simple matter for those applicants to have provided direct evidence to the Court as to their proposed

use of allocated water. They failed to do so. Following the clear authority of the decision of the Court of Appeal in *De Tournouer* in virtually identical circumstances, I am left with no option but to dismiss the appellant Gallo's appeal.

[85] As regards the Williams' appeal, as I have already indicated, there are details of the proposed use of the water set out in Part F of their application, and the expert report of Mr Sutherland also makes reference, consistently, to the stated purpose of the Williams' application. Certainly, the expert evidence as to the sustainable use of the groundwater in the Williams' application does not fall conclusively in favour of Williams. However, taking all of the facts of the Williams' application and the evidence relating thereto into account, and noting the concept of fairness as stipulated by the legislation, in my view it is appropriate that the Williams' appeal be upheld and that a water entitlement of 515 megalitres per annum be granted. However, taking into account the provisions of s.11 of the *Water Act* which relate to principles of ecologically sustainable development, which Counsel for the respondent have submitted, and I accept, can conveniently be referred to as a statutory formulation of the principle generally known as "the precautionary principle", it is my view that it is appropriate to impose, as suggested by the appellants,[39] appropriate conditions to monitor and manage the Williams' water licence. In this regard, Mr Sheridan referred me to Mr Smith's expert report where he stated:[40]

> "**4.2 Proposed Environmental Monitoring Program**
>
> It was proposed in the Margaret Frances de Tournouer v. Chief Executive DNRW case that a surface and groundwater monitoring program would be instigated though the effected catchment in order to control any adverse impacts that may have been caused by increased groundwater pumping. If greater groundwater protection measures are required, it is proposed that a similar monitoring program be instigated for potentially affected areas surrounding the two Appellants properties, details of which would be agreed with DERM prior to any increased pumping occurring. This program will be designed to ensure that no adverse environmental impacts will occur by halting pumping when water levels and/or water quality trigger values are reached.

[86] I do not have sufficient details before me in order for me to draft a specific condition in accordance with that proposed in general terms by Mr Smith. Accordingly, it is my intention to order the parties to attempt to negotiate a common form of words for such special condition within 28 days of the date of delivery of this decision and,

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[39] See appellants' submissions paragraph 77.
[40] Exhibit 19, page 14 at 4.2.

failing any such agreement, to bring the matter back before the Court for formal decision as to the terms of the special condition.

Referral of issues to the Crime and Misconduct Commission

[87] The appellants, through their Counsel, Mr Sheridan, urge the Court to refer issues surrounding the granting of water licences within Area B of the BWRP which have clearly not followed the statutory regime to the Crime and Misconduct Commission for investigation.

[88] In my view, although Mr Bell's evidence clearly shows that the respondent did not follow the clear legislative mandates in assessing water licence applications in Area B of the BWRP from 2002 onwards, the Court does not have before it any clear evidence as to why such maladministration occurred. For instance, it is a matter of mere speculation as to whether the legislative scheme was applied in such a haphazard manner because of a lack of resources available to the respondent; laziness on behalf of departmental officers; work practices put in place by the respondent; systemic maladministration amounting to misconduct; or a myriad of other possibilities. Of course, there is a significant financial gain to landholders when a water licence is granted, creating an atmosphere potentially ripe for corruption. I must stress that no evidence of corruption has been placed before the Court in these appeals. It is clearly not appropriate for the Court to guess what may or may not have taken place in the offices of the respondent as regards the respondent's failure to properly apply the provisions of the *Water Act* and the BWRP to Area B applications.

[89] Accordingly, I do not consider it appropriate to refer any aspect of this matter to the Crime and Misconduct Commission for investigation. However, that certainly does not preclude either of the appellants in these appeals from referring any such allegations as they may consider appropriate to make to the Crime and Misconduct Commission. Nor does it diminish the statutory duty of any public servants who may actually know of actions in breach of acceptable standards of behaviour to report same.

[90] Although I do not consider it appropriate for the Court to refer matters to the Crime and Misconduct Commission, nevertheless I am deeply perturbed that the statutory requirements as set out in the *Water Act* and the BWRP have not been followed as regards applications for water licences made within Area B post 2002. In simplistic terms, the evidence before me suggests that the interest of fairness and proper usage

of a scarce commodity demand that all water licences granted post 2002 with respect to Area B should simply be set aside and the allocation of water licences start afresh according to law. I realise, of course, that holders of existing water licences in Area B may have a very different view in this matter. I also accept the respondent's submissions that I have no power under the *Water Act* to make any binding orders in effect cancelling existing water allocations for Area B. Indeed, the basic principles of natural justice demand that even if such power existed, it would be completely inappropriate to make any such orders in circumstances where the other licence holders have not had any opportunity to put any submissions or evidence before the Court. However, the concerns that I have as a consequence of the evidence placed before me in these appeals and in particular as set out in Exhibit 43 leads me to the conclusion that it is appropriate to bring my concerns of maladministration to the attention of the Honourable the Premier and the Honourable the Minister for Natural Resources and Mines.

[91] Of course, I have no way of knowing if the maladministration evident in Area B extended to Area A of the BWRP, or indeed more widely to other plans administered by the respondent across the State. Given that water is such a precious commodity for this State, and given the evidence before me, in my view it would be remiss of me not to ensure that the evidence of maladministration was not drawn directly to the attention of the Honourable the Premier and the Honourable the Minister for Natural Resources and Mines.

[92] Accordingly, I direct that the Registrar of the Land Court write to the Honourable the Premier and the Minister for Natural Resources and Mines enclosing a copy of these reasons and bringing the Premier's and the Minister's attention to this paragraph in particular and generally to those parts of this decision which relate to the practices of the respondent in assessing applications for water licences within Area B of the BWRP in the period 2002 and following.

Some closing observations

[93] I have little doubt that, when they read my reasons as set out herein, the appellants Gallo and Williams will question all of the processes involved in the consideration of water licence applications under the *Water Act* and relevant subordinate legislation. One can certainly understand why they may have such feelings. It should be remembered that Williams applied for their water licence the subject of these appeals on 5 August 2003, and that Gallo applied for their water licence on 17 February

2005. The initial decisions with respect to both the Gallo and Williams' applications were made on or about 9 November 2006. Gallo sought an internal review on 19 December 2006, and Williams sought an internal review on 20 December 2006. The initial Gallo decision was confirmed by review decision of 14 February 2007, and the Williams' initial decision was likewise confirmed by review decision of 13 February 2007. Both Gallo and Williams filed appeals to this Court on 23 March 2007.

[94] Prosecution of the appeals before the Land Court have themselves not gone smoothly, even though both appeals were joined and ultimately heard together. One aspect of the delay occurred as a result of the successful application by the respondent to have the President of this Court disqualify herself from hearing these appeals in light of an apprehension of bias.[41] That led to an abandonment of hearing dates commencing 15 March 2010. At this same time, the number of Members available to hear such matters had fallen to unacceptably low levels. The hearing of the evidence ultimately occurred in September 2010.

[95] Following the conclusion of the evidence, the hearing was adjourned in order to allow the parties to make formal written submissions with the aid of the transcript and to then come back before the Court for oral submissions. As matters transpired, the hearing of the oral submissions was delayed for matters beyond the control of any of the parties, including specifically the consequential impacts on various people involved of the significant floods in Brisbane and indeed throughout Queensland in Christmas 2010 and January 2011.

[96] Ultimately, the oral submissions were heard on 15 March 2011. However, that did not see the end of submissions, as the important issue of fairness required the parties to submit additional submissions to the Court, the last of which were only received by the Court on 13 May 2011. By this time, my own court calendar had entered a period where I had a significant number of relatively complex matters listed over a considerable amount of time right up until late 2011. Despite the heavy court workload, I was determined to publish my decision with respect to each of these appeals before the end of 2011. Indeed, substantial drafting of the decision had occurred in 2011 and delivery of the decision within that timeframe was on track, until serious medical issues relating to an immediate member of my family, which required urgent surgery and ongoing treatment to the present time, overtook me,

[41] See *Gall and Williams v Department of Natural Resources and Water* [2009] QLC 0181.

requiring me to take unexpected leave. Thankfully, I have been able to get back to my draft decision and conclude it and deliver it today.

[97] I have set out this history because, in real terms, as far as Williams is concerned, it has taken from 5 August 2003 to 5 April 2012 to have their water licence application determined. Similarly, as regards Gallo, it has taken from 17 February 2005 to 5 April 2012 to have their application considered. The applicants must be left scratching their respective heads as to why their water licence applications have taken almost nine years and over seven years respectively to be decided. Insofar as the delivery of my decision has delayed consideration of these applications post May 2011, I can but apologise.

Orders

1. As regards the appeal of Gallo (WAA021-07), the appeal is dismissed.

2. As regards of the appeal of Williams (WAA022-07), the appeal is allowed and it is directed that a licence to take 515 megalitres of water per annum be granted, with such licence to be subject to appropriate conditions as to the monitoring and management of the licence.

3. Williams and the respondent are to meet and seek to negotiate agreed conditions of the licence within 28 days of the date hereof.

4. Williams and the respondent are to jointly advise the Court of the outcome of these negotiations in accordance with Order 3 hereof by not later than 4.00pm on Tuesday 8 May 2012.

5. In the event that the parties Williams and the respondent are not able to reach agreement as to agreed conditions, matter WAA022-07 is listed for further review and directions on Thursday 10 May 2012 at 2.30pm.

6. The Registrar of the Land Court is directed to write to the Honourable the Premier and the Minister for Natural Resources and Mines enclosing a copy of these reasons and bringing the Premier's and the Minister's attention to paragraph [92] of these reasons in particular and generally to those parts of this decision which relate to the practices of the respondent in assessing applications for water licences within Area B of the BWRP in the period 2002 and following.

PA SMITH
MEMBER OF THE LAND COURT