

**NATIONAL ENVIRONMENTAL LAW ASSOCIATION  
CANBERRA  
13-15 July 2005**

**ENVIRONMENTAL ISSUES - HOW SHOULD WE RESOLVE  
DISPUTES?**

**The Hon Justice Peter McClellan  
Chief Judge, Land & Environment Court**

The land to which Captain Phillip brought his small fleet was blessed with abundant water, clean air and fertile soils. As the colony developed the population extended from Sydney out along the coastal river system and, within a short period, up into the Hunter Valley and onto the western plains beyond the mountains. At the same time journeys were made to the south and west where new colonies were established in an equally pristine environment. As the population grew and white settlement spread land was cleared for grazing and cropping. Before long the rivers were provided with locks and weirs to facilitate travel and water was made available for irrigation.

From the beginning of white settlement the only control of the environment was provided by the rules devised by the English common law to control a nuisance. The primary purpose of those rules was to adjust the rights and settle disputes between individuals. With respect to water the common law gave to the owner of land through which a stream passed the right to take water, provided they did not interfere with the quality or access of a downstream owner. The law of nuisance proved adequate for the early settlements and, during the greater part of the 19<sup>th</sup> century the colonial governments had little interest in or need to consider providing special rules to

control the use of the river waters. Water was believed to be abundant, as of course, it was - for the needs of a relatively small community.

However, by the latter part of the 19<sup>th</sup> century the situation began to change. By then it was recognised that there was a potential to manage the available water to boost the productive capacity of lands both adjacent to the water source and further removed from it. There was also an increased appreciation of the benefits which might flow from the damming of rivers creating storage waters which could be utilised to ameliorate the variation of the seasons.

As is customary in our community when problems arise, the lawyers became involved. The Victorian Government set up an Inquiry known as the Royal Commission on Water Supply - the Deakin Royal Commission which reported in 1884. As a result of the Commission's report, legislation was enacted in Victoria and subsequently in New South Wales, which sought to provide a state-regulated regime for the distribution and use of water. It is of interest that at the same time, precisely the same matters were being reviewed in other countries. In Canada there was the General Report on Irrigation and Canadian Irrigation Surveys (1894) and in the United States the Second Report of the State Engineer to the Legislature of California (1881).

The prevailing ethic of that time dictated that the available water should be exploited for industrial, domestic and agricultural production. Any impact on the natural environment was neither recognised nor understood. And so the enormous investment in developing and irrigating inland Australia for agrarian purposes began

without consideration of the consequences of depleting the natural flows in the river systems and the problems which would come from the introduction of irrigation to vast areas of otherwise semi-arid lands.

Australia became a Federation of States on 1 January 1901. As I am sure you are aware there was initially little enthusiasm for the proposal and there was, and remains today, different views in the community about the powers which the Commonwealth Government, as opposed to the States, should exercise. The fact that the Constitution did not give the Commonwealth control over the waters of the inland rivers, or at least the waters of the Murray Darling Basin, reflects amongst other things, a failure to recognise the significance of the resource - perhaps not surprising, given the assumed abundance of water at the time. The Constitution expressly left water matters to the States providing in s 100 that:

"The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation."

Notwithstanding later agreements between the States and the Commonwealth, the legacy of this failure has been reflected in many ways. It is found in the struggle by South Australia to achieve better water quality. In more recent times, it has been reflected in the struggle by the southern States to have Queensland accept that the health of the Darling river system depends upon the preservation of sufficient quantity of water which is of sufficient quality to be useful for irrigation and the maintenance of natural ecosystems.

It is not my purpose today to trace the history of the development of irrigation in the 20<sup>th</sup> century. However, by the latter part of the century, the development of land by irrigation had become increasingly controversial. That controversy was accompanied by a recognition, at least by some, that the philosophy which underpinned the development of irrigation schemes and the increased productivity of agricultural lands failed to recognise the fragile nature of the natural environment. The contemporary response has been to limit new licences, impose volumetric allocation schemes and seek efficiencies of use by allowing the market to trade water entitlements. To enable water to be managed by the State it has been necessary to legislate and provide mechanisms for both the control and fair distribution of the water. The common law doctrines which concentrated on the rights of individuals with access to the streams were no longer adequate (see the discussion in S D Clark and I A Renard "The Riparian Doctrine and Australian Legislation" (1970) 7 Melbourne University Law Review 475.

Before I turn to reflect on those issues it is important to appreciate that we are not the only country which faces problems of degraded river systems. Writing in the Sydney Papers in Spring 2000 Milton Osborne, a recognised authority on the history and politics of Southeast Asia, discussed the Mekong Delta. He said this:

"As Australians are slowly coming to understand the damage they have done to their river systems, there is a growing worldwide realisation of the extent to which the control of water is both an environmental and a political problem. This is certainly the case with the Mekong, Southeast Asia's largest river. With

a length of 4,800 kilometres, the Mekong is the world's twelfth largest river, flowing through or past six countries - China, Burma, Laos, Thailand, Cambodia and Vietnam. In terms of the amount of water it discharges into the ocean, the Mekong is the world's tenth largest. With a drainage basin of nearly 800,000 square kilometres, it is, as its name eloquently translates, the "Mother of the Waters" for the populations of mainland Southeast Asia.

I first saw the Mekong 41 years ago, flying from Saigon to Phnom Penh. Even though this was in April at the height of the dry season with the river at its lowest level, what I saw through the thick, dusty haze was a river of enormous size stretching in great serpentine bends into the distance. My experience of large rivers was limited to having seen the Murray River, and it was clear that what lay beneath the aircraft was something of quite a different order. In terms of the volume of water flowing down the river, the Mekong is many thousands of times greater than the Murray (p 79)."

Osborne goes on to relate the contribution which the river has made to sustaining the communities along its reach. However, he also identifies the serious environmental degradation which has occurred. The results are declining fish numbers, negative effects from chemical fertilisers, the multiplicity of consequences which come from land clearing, problems arising from unbounded enthusiasm for large dams and ambitious plans to blast channels to facilitate the use of the river for transportation. Osborne concludes: "We cannot with any certainty say what the river will be for [future generations] (p 84)."

There are some people in the community who, either through self-interest or a lack of understanding, maintain that the water, air and land both in Australia and throughout the world will provide us with abundant wealth forever. Others accept that we face significant problems. The Premier of New South Wales speaks with real concern about the impact of green house gases on the world's climate. The Prime Minister has accepted that climate change is a reality. Speaking on the issue of global warming in a joint press conference with the Premier of New South Wales, the Prime Minister said: "I think the scientific evidence is very, very strong." However, the awareness of problems and a determination to do something about them has not always been apparent. This has much to do with the community's approach to the gathering of information and the mechanisms we have adopted to resolve conflicts when they emerge.

Some of these difficulties are apparent in the management of water in New South Wales. Until recently, the legislation which controlled the grant of water licences provided no guidance with respect to the criteria for a grant. Although a person had a right to object to the granting of a licence which would lead to an inquiry before a Land Board the principles by which disputes were to be resolved were left to be defined by the courts. The common law protected the rights of riparian owners but for many years there was controversy about the extent to which the *Water Act 1912* intruded on those rights (see *Dougherty v Ah Lee* (1902) 19 WN(NSW) 8 and *Attorney General v Bradney* (1903) 20 WN(NSW) 247; *Thorpe's Ltd v Grant Pastoral Co Pty Ltd* (1955) 92 CLR 317). The debate received judicial attention as recently as 1995 in *Van Son v Forestry Commission of New South Wales* (1995) 86 LGERA 108 in which Cohen J concluded that a complete common law right to a flow of water no

longer existed although he considered that a remnant of those riparian rights was still available.

One of the early difficulties with the New South Wales legislation was in identifying the role expected of the government body responsible for administering the Act in the event of a dispute. Remarkable as it may seem the initial approach was that there was no role for the Water Resources Commission to play before a Land Board or the courts. The Commission itself believed it should remain independent from any judicial decision-making. It was not until the 1920s and the decision in *Marshall v Lance & Ors* (1923) 2 LVR 43, that it was held that the Water Conservation and Irrigation Commissioners, being public trustees, should be represented before the Land Board at the hearing of cases dealing with applications under the Act. The application involved the licence to pump from a lagoon near Sydney. The Court held that the Commission was the body which could most effectively provide the Land Board with an unbiased assessment of the hydrology of the lagoon and the effect which pumping might have upon it. A recognition of a "public interest" in the access to water was emerging however slowly.

A significant contribution towards recognising the "public interest" as a component in disputes was made by Roper AJ, in particular in his Honour's reasons for decision in *F W Hughes Pty Ltd v Water Conservation and Irrigation Commission* (1937) L&V V-C 11. The applicant sought two licences to irrigate for stock and other purposes. The Water Commission had come to an adverse conclusion in relation to the application but on appeal to the Land Board it was determined that licences should be granted. In the appeal Roper AJ acknowledged the interest of the Commission, both because

of its concern in relation to general matters and the potential to affect its individual works. He identified the ultimate question for determination in the following terms:

"It may be assumed that in almost all cases the grant of the licence is advantageous and so desirable from the applicant's point of view; but I think that the question to be determined under s 11 is whether it is desirable in the public interest that the rights of the Commission should be cut down." (p 17)

Hardie J adopted similar principles in *Robson v Water Conservation and Irrigation Commissioner* (1955) 36 LVR 57. Although this early reference to the public interest emerged there was still no consideration of whether water should be given in priority to the farmer who could make the most beneficial use of it. Disputes remained focused on a resolution as between upstream and downstream of a right to the flow of water.

Major controversies were not apparent until the development of large scale irrigation works, utilising significant proportions of the available water, began to reveal fundamental problems in the natural systems. Increasing levels of salinity in the waters of the Murray, in particular as they entered South Australia, were an indicator of emerging problems. But there were others. The salinisation of irrigated lands initially caused concern and then alarm, as did the general depletion of the natural ecosystems in the rivers. A major report was commissioned from Dr Maunsell which sought to identify how the waters of the Murray Darling Basin might be better utilised to ensure that water quality was maintained at a high level. The Report was an



important scientific document as well as becoming central to the emerging political debate.

As you are aware the Murray Darling Rivers constitute the most significant river system in Australia. The two rivers, with their many tributaries, carry water from Victoria, New South Wales and Queensland, passing to the ocean through South Australia. It drains one-seventh of the continent, an area the size of France. It provides about 75 per cent of all the water consumed by Australians. The system provides town water, water for industrial purposes and significant quantities for irrigation in New South Wales, Victoria and South Australia. Within this system many works have been constructed for the storage of water to enable its use for irrigation. The system is the subject of an agreement originally known as the River Murray Waters Agreement which was executed by the Commonwealth of Australia and the three States on 19 September 1914. It has been amended on a number of occasions and was ultimately replaced in 1988 by the Murray Darling Basin Agreement. The current Agreement is the Murray-Darling Basin Agreement, June 1992. It was given full legal status by the *Murray-Darling Basin Act* 1993 passed by all the contracting governments. In 1996 Queensland also became a signatory, under terms set out in Schedule D to the Agreement. In 1998, the Australian Capital Territory formalised its participation in the Agreement through a Memorandum of Understanding. The original Agreement constituted a River Murray Commission to give effect to its provisions. Through the Commission the available waters are managed and dispersed. There is reference in the Agreement to potential salinity in one limited respect but otherwise the Agreement did not impose obligations which would provide for the effective management of the river system under the conditions

which emerged in the 1970s. As I have noted, the Australian Constitution was effectively silent on the use and control of river water, the problems (although undoubtedly none were then envisaged) being left to be resolved by the States.

By 1980 South Australia had become increasingly concerned over the quality of the water which it was receiving. Although the Agreement guaranteed South Australia an identified percentage of the waters in the system, this was not proving adequate to guarantee suitable water quality. It decided, no doubt because of political pressures from city dwellers, whose water was notoriously of poor quality, and irrigators whose livelihoods were at risk, that it would actively intervene in the process of allocation of licences and management of streams in New South Wales. It determined to use any legal means available to it to inhibit the grant of further licences. Many actions were commenced in the New South Wales Land and Environment Court claiming that existing licences had been granted in breach of the *Environmental Planning and Assessment Act 1979*. It also considered an action for nuisance against the States of New South Wales and Victoria and determined to oppose the grant of any further licences anywhere it could.

One matter raised all of these issues to a heightened level of debate. In the case known as *Water Resources Commissioner of New South Wales v State of South Australia* (1980) - Perrignon J - unreported), the dispute involved an application by a number of people to take waters for the purpose of irrigating for agriculture along the lower reaches of the Darling River before it joins the Murray. The matter was initially heard by a New South Wales Land Board which recommended refusal of the licence. The reasoning of the Board is important and revealed considerable insight

into the emerging problems for the river. Having identified the prospect of increasing salination of the river system because of irrigation, the Board referred to the caution which the Maunsell Report had suggested should be exercised before further demands for water were created. It grappled with the concept of the public interest on a scale which had never previously been considered. It said:

“The Board considers that its main task in this inquiry is to balance the interest of the applicant against the public interest generally. It has been laid down in judgments in the Land and Valuation Court that the main question for determination is what is necessary or desirable in the public interest, and we have applied ourselves to that task.

In themselves each of the applications would have only a minute effect as far as reductions in river salinity is concerned, however, taken together and also bearing in mind that applications to irrigate 3170.5 hectares are in hand up to 30 November 1979, the date which was recently announced by the Chief Commissioner of the Water Resources Commission that applications after this date for irrigation licences on the Darling River downstream from Lake Wetherell will not be granted, and also an uncontradicted statement by one of the objectors that an application had recently been advertised for a licence to irrigate 3000 hectares near Bourke, in the uncontrolled section of the Darling River, the position is one that assumes some considerable significance.”

The Board also turned attention to the resolution of the competing claims of New South Wales and South Australia to the water. Its conclusion underlines the

inadequacy of the Australian Constitution by not providing for national “ownership” and disposition of the resource. The Board was, of course, the instrument of New South Wales and it is not surprising that it put the interests of that State ahead of others. But it is hardly a satisfactory resolution of a national problem. It said:

“It is appreciated that New South Wales as a Sovereign State is entitled to the use of its waters as provided by the legislature and subject to agreements properly entered into with other States, however it is considered that the public interest in a country like Australia should be considered beyond the borders of the State. Having said this, however, we would look firstly to the needs of the people of New South Wales and secondly to those of the other States”

The decision to give precedence to the interests of the people of New South Wales is not explained and no attempt is made to identify the weight given to the South Australian concerns. Whether it played a significant part in the ultimate decision is now impossible to identify. However, although not expressed or indeed discussed in these terms, the Board clearly embraced an approach which might be reflected in the current view of the “precautionary principle”.

This decision should have had great significance. Although the Board reached the conclusion that the individual applications were of little consequence it recognised their significance as part of the whole system. It also recognised, as later became plain to all, that there was insufficient knowledge of the system to justify its further depletion by irrigation. The Board urged that the Maunsell Report be given

significant consideration. That Report had concluded that insufficient investigation had been undertaken to enable a competent decision to be made that further irrigation was possible.

The applicants for the irrigation licences did not accept the Board's decision and appealed to the Land and Environment Court which conducted a rehearing. I must disclose that I was counsel for South Australia at that hearing. Some new evidence was given, particularly from engineers within the Water Resources Commission, and the matter reargued. One issue which was ventilated was whether South Australia was entitled to be a party to the proceedings at all. Perrignon J found in favour of South Australia on this question, holding that the possibility of increased salinity of the Murray River justified its intervention.

One remarkable feature of the case was the evidence from senior officers of the Water Resources Commission to the effect that the granting of the licences would have *"no appreciable effect upon the salinity of the waters either of the Lower Darling or the Murray"*. This was similar to the evidence placed before the Land Board. Remember this was 1981 only about 25 years ago. The Commission also gave evidence about the river system suggesting that the Lower Darling did not need waters for the purpose of dilution flows. It supported a volumetric allocation scheme with an 80% reliability rate believing that this would ensure that water was not "wasted". The Commission believed that the system should be exploited so as to maximise the waters available for irrigation, the environmental concerns urged by South Australia not being thought significant. By contrast South Australia argued that the increase in salinity levels in the Murray in recent years had reached

unacceptable levels. The general plea was made that the time had come for the refusal of further licences, in the interests of the river system and of the downstream irrigators and other users dependent on the waters.

The Judge took a different view from that of the Land Board. Turning aside any suggestion that caution should be exercised his Honour said:

“On the evidence before me I can see no good reason for withholding the water pending the making of further investigations, or the taking of further measures, relating to salinity. The evidence of the Commission’s experts satisfies me that the waters can properly be released to the present applicants without harm to the objectors or other irrigators or to the river system in general. Nor am I persuaded to the contrary by anything in the Maunsell Report, or at least those portions thereof which have been tendered in evidence. That Report is generally recognised as an important document which provides guide-lines for further research and investigation into salinity problems. Some of the measures recommended by the Report have already been undertaken.”

He went on to embrace the approach of providing 80% reliability and found that no harmful effect would ensue to existing licence holders provided appropriate conditions inhibiting the return of tail waters to the river were imposed.

As to the argument that if not allocated the waters might be used to greater benefit in the system, the Judge noted that he could not control the ultimate disposition of

those waters. They might be allocated by the Commission to another irrigator. The inadequacies of a system which concentrated on the rights of individuals and which had no capacity to deal with problems of the whole system were clearly revealed.

The Judge said:

“I do not think that the water which would be available for use if the present applications were not granted would have any beneficial effect, other than perhaps a negligible one, upon existing licence holders if it, or its equivalent in quantity, were equally distributed amongst them. In any event the disposition of such water, if these applications were not granted, would be a matter to be determined by the Commission in the light of the circumstances existing at the time of its determination and it by no means follows that the objectors would obtain any benefit at all from that water or its equivalent.”

The Judge also considered the fact that other licence applications were pending along the Lower Darling but determined that the prospect of those licences being granted was irrelevant. Apparently, questions of precedent and fairness did not warrant consideration. Although adverting to the fact that the main consideration in any appeal is what is necessary or desirable in the public interest, he nowhere seeks to define the relevant elements of the public interest, especially in the context of the challenge brought by South Australia.

The contrast between the decision of the Court and that of the Land Board is obvious. The Land Board both recognised the interests of the neighbouring State (although we do not know of the weight given to its concerns) and, more significantly,

applied caution in its decision-making. It recognised that the system was known to be vulnerable because of past irrigation practices. In contrast the Court decision reflects a concern only with the position of the individual applicants, balancing those against the interests of the individual objectors, but fails to recognise the more significant questions which it was argued the public interest should have required be given determining weight. The decision set aside any concern with respect to the problems which the system was experiencing or concerns as to whether the available water should be allocated so as to contribute to the health of the river rather than the interests of the individual irrigators.

It is extraordinary that this decision passed with little comment. Plainly it does not reflect the analysis which would be given to the problem today. Perhaps it should be understood as the only response which the available dispute resolution mechanism could have provided. The prospect that there might ever be insufficient water to meet all of the demands on the system, including environmental flows, and the difficulty of the legislation of one State protecting the interests of another, had never previously been considered. Neither the existing legislation nor any principle defined by the courts were adequate to deal with the problems which had emerged.

There was an immediate political response to the South Australian intervention in New South Wales decision-making processes. Confirming the problems facing a federation in dealing with a national problem, the New South Wales Act was amended so that South Australia could no longer be a party to any proceedings involving an application for a water licence in New South Wales. (Water (Amendment) Act 1981 No.49).



My purpose in drawing attention to these matters is to raise for consideration whether the current means by which the courts in Australia traditionally resolve disputes is appropriate for the resolution of many environmental problems. The fundamental elements of the adversarial system provide for a contest between the parties with the judge as the independent umpire. It is inevitable that the proponents of a project, which may impact upon the environment, will marshal factual material and scientific expertise designed to bring a victory for the "self interest" which they represent. The opponents will do the same. When a government agency is introduced to represent the "public interest" it is likely that it will invest significant intellectual energy in seeking to maintain, in the public forum, the position which it has privately defined. Because the process is adversarial the imperative to succeed will almost always prevail over a concern to inform. This will be true of both private litigants and government agencies. This is not to suggest that any party to environmental litigation will be consciously dishonest but when our understanding of our environment and its complexity is evolving at a frenetic pace, we must consider whether the traditional adversarial contest is the appropriate mechanism to resolve the conflicts which emerge between public and private interests.

I have spoken previously about the difficulties with expert evidence in adversarial litigation. The conference program provides for a detailed discussion about those matters tomorrow. Although that discussion must bear in mind that one object of any litigious dispute will be to adjust individual interests it is now plain that when the dispute involves a potential impact upon the environment the public interest must be given pre-eminent status. If we are to continue to resolve these disputes by

adversarial contests we must consider whether our conventional process should be modified. In particular we must consider whether protocols should be developed for the appointment of independent experts to assist in the resolution of at least the more significant disputes. If we mould our processes to make them more inquisitorial, and to my mind this has much to commend it, it will still be necessary for the tribunal to identify people with the requisite knowledge who are not beholden to one of the individual litigants who can assist it to unravel the issues.

Many years ago now I was appointed as counsel to assist the Maralinga Royal Commission. For 18 months we travelled Australia and spent many months in the United Kingdom piecing together the history of the nuclear tests and identifying their impact upon the social structure and well being of indigenous people who were displaced during the testing processes. We gathered information from some of the worlds leading scientists about the likely impact of the emissions from the blasts upon the health of the indigenous population and white people who received "radiation doses." This required an analysis of the medical consequences of exposure to plutonium.

I was asked during the course of the Commission, by the scientist who headed the Australian Radiation Laboratory, why it was that the Commission was investigating these scientific questions by interrogating the individual experts rather than bringing them together in dialogue so that as far as possible the experts could resolve the areas of disagreement, leaving the Commission, having heard the discussion, to sort out any remaining questions. His comment to me was that it seemed strange to set up a "court case" to solve a scientific problem where the advocates controlled the

debate, asked all the questions and in pursuit of the interests of their client attempted to obtain answers which may have provided a "win" but, may not, and, probably did not seek the true answer to any question. I had no effective response.

On many occasions since the Commission I have been involved in the resolution of complex scientific questions or other issues where the expertise of non-lawyers was involved. Although I was not able to influence the process of hearings in most cases I increasingly became convinced that the mechanisms we were using were not ideal. My views crystallised when I was asked to investigate the failure of the Sydney water supply in 1998. Although I had the powers of a Royal Commissioner the scientific questions, and there were many, were not resolved by adversarial battles but rather by a process of consultative dialogue with relevant experts.

As many of you would know in the New South Wales Land and Environment Court we have now formalised this process of gathering expert evidence giving it the label "concurrent evidence." It has been adopted in all cases where there is a disagreement between experts. It has met with almost universal approval by the decision makers and the experts and advocates who have participated in it. If you ask any person who is required to resolve disagreements between experts as part of their professional life, perhaps an engineering problem, financial problem, medical problem or whatever, the last thing they would do is set up a court case and brief barristers to have the experts give evidence and be cross-examined. What any sensible person will do is set up a forum in which a structured discussion takes place, with an orderly exchange of views through which the decision maker can be given the relevant facts and opinions and determine the appropriate outcome. I see

no reason why it should be any different when environmental issues require resolution.

The conference will look at many issues, although tomorrow is devoted to mechanisms for the gathering of knowledge and the resolution of environmental disputes. Given the complexity of the problems we now face and the importance of their resolution in an appropriate manner it is, to my mind, critical that our dispute resolution mechanisms adopt appropriate procedures. I doubt whether the adversarial system, as we presently understand it, provides those procedures.

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