

**Water and Ecologically Sustainable Development in the Courts**

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## Introduction

Australia is the driest inhabited continent on earth. It has the lowest percentage of rainfall as run-off, the lowest amount of run-off, the least amount of waters in rivers, the smallest area of permanent wetlands and the most variable rainfall and streamflow in the world<sup>1</sup>. Ensuring sustainable use of Australia's scarce water resources is critical. Disputes concerning the sustainability of use of water resources have been litigated in Australian courts. The disputes have focused on:

- the construction of structures for diversion, retention or conveyance of water;
- the carrying out of development that impacts on water resources or water dependent biota or ecological communities;
- the impact of the hydrological regime on development; and
- the use of water by development.

These types of matters provide a framework for analysing how issues of sustainability, in relation to water, have come before Australian courts. No single case provides a comprehensive or detailed analysis of sustainability in relation to water; rather, each case provides but a glimpse into the problems and suggested solutions. Cumulatively, however, a picture is starting to emerge from these discrete glimpses.

## Construction of water structures

The construction of structures to divert, retain or convey water can have both direct and indirect effects on the environment and the attainment of ecologically sustainable development (ESD).

One direct effect of the construction of water structures is the loss of native vegetation and biodiversity that lie under and around water structures. Native vegetation, for example, may need to be cleared in order to construct dams<sup>2</sup>. Another direct effect is the impact on downstream biodiversity by the diversion and retention of water that previously flowed to the habitat of that biodiversity, such as a wetland. An example referred to in one of the cases<sup>3</sup> is the construction of the Copeton Dam on the Gwydir River in NSW, which has had a major impact on the ecology of the Gwydir wetlands listed under the *Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971* (the *Ramsar*

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<sup>1</sup> State of the Environment Advisory Council, *Australia: State of the Environment* 1996, page 7.4

<sup>2</sup> As occurred in *Director-General, Department of Land and Water Conservation v Jackson* (2003) 125 LGERA 304 and *Director-General of the Department of Land and Water Conservation v Bailey* (2003) 128 LGERA 1, affirmed in *Director-General, Department of Land and Water Conservation v Bailey* (2003) 136 LGERA 242

<sup>3</sup> See *Minister for Environment and Heritage v Greentree (No 2)* (2004) 138 FCR 198 at 217 [55] and [56]

*Convention*)<sup>4</sup>. Furthermore, channels and bore drains have diverted water away from the Gingham and lower Gwydir watercourses for irrigated cropping purposes reducing the volume of water received by the Ramsar listed Gwydir wetlands.

Indirect effects may arise from the use of structures to divert, retain or convey water. For example, water retained in dams may enable grazing land to be used for irrigated cropping purposes.

Disputes concerning both the direct and indirect effects of water structures have been litigated in the courts.

In relation to the direct effects of water structures, litigation in New South Wales has focused on the legality of clearing of native vegetation for the construction of artificial waterbodies. Whether such clearing results in a breach of native vegetation legislation may depend upon the statutory exemptions available. Under the *Native Vegetation Act 2003* (NSW), construction of artificial waterbodies may be excluded from the statutory requirements for consent for the clearing of native vegetation. Under s 22(1) of the *Native Vegetation Act 2003* (NSW), native vegetation may be cleared for routine agricultural management activities, which are defined in s 11(1)(a)(i) to include the construction, operation and maintenance of rural infrastructure, including dams. There are also other statutory exemptions from the requirement to obtain consent for the clearing of native vegetation. Under s 25(f) of the *Native Vegetation Act 2003* (NSW), 'excluded clearing' includes clearing that is, or is part of, designated development within the meaning of the *Environmental Planning and Assessment Act 1979* (NSW) and for which development consent has been granted under that Act. Artificial waterbodies are classified as designated development<sup>5</sup>. *Director-General, Department of Land and Water Conservation v Bailey*<sup>6</sup> confirmed that clearing of native vegetation for artificial waterbodies is excluded as being part of designated development.

Diversion of water from one river system to another by construction of water structures has been a further subject of litigation. *Coulton v Holcombe*<sup>7</sup> involved an application to construct and use a joint water supply scheme which would have diverted quantities of water from the Macintyre-Dumaresq River System to the Whalan Creek System and the challenge to that application by other landholders, who were licensed to use limited quantities of water from the Macintyre-Dumaresq system.

Another example of a diversion of a river arose in *Lansen v Minister for Environment and Heritage*.<sup>8</sup> The operator of the McArthur River mine near Borroloola in the Gulf Region of the Northern Territory, proposed to alter its operations from an underground mine to an open cut mine. The McArthur River flows across the site of

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<sup>4</sup> *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, open for signature on 2 Feb 1971, UN Treaty Series No 14583 (entered into force on 21 Dec 1975)

<sup>5</sup> See cl 4(1) and item 4 of Part 1 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 (NSW)

<sup>6</sup> (2003) 136 LGERA 242 (NSW Court of Appeal), affirming *Director-General of the Department of Land and Water Conservation v Bailey* (2003) 128 LGERA 1 (Land and Environment Court of NSW)

<sup>7</sup> (1986) 162 CLR 1

<sup>8</sup> [2008] FCA 903; (2008) 102 ALD 558

the proposed open cut mine. The proposed conversion and expansion of the mine would require a diversion of the course of the river for 5kms around the site of the open cut mine.

The decision of the Minister for the Environment and Heritage under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) to approve the proposal, including the diversion of the McArthur River, was challenged by native title claim groups. The applicants were concerned about the potential environmental impacts of the proposal, in particular the diversion of the McArthur River, which could potentially adversely impact on certain fish species, including freshwater sawfish, and migratory bird species.

The applicants challenged the approval on grounds that included defects in the process and inadequacy of the environmental impact assessment (EIA) undertaken for the proposal and the failure to take into account the precautionary principle. In the latter respect, the applicants' concern was that there was a lack of full scientific certainty as to the effect of the proposal on the population of freshwater sawfish. The applicants submitted that the absence of discussion in the Minister's statement of reasons for the decision, concerning the lack of adequate surveys of the freshwater sawfish population, was evidence that the precautionary principle had not been considered. The Federal Court rejected the challenge, holding that the process for the EIA was correct and adequate, and that the Minister had not failed to take into account the precautionary principle in making his decision.

Another example of a direct effect arose in the construction and operation of the Paradise Dam on the Burnett River in Queensland. The design of the dam incorporated stream fishways. The purpose of the fishway was to permit a protected species of fish, the Australian lungfish, to move upstream and downstream of the dam without injury. In the absence of such fishways, the dam prevents this movement. Ministerial approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) was granted for the construction and operation of the Paradise Dam, subject to conditions including condition 3 that the operator install a fish transfer device on the dam suitable for living fish with a requirement that the fishways commence when the dam became operational. An environmental non-governmental organisation (NGO) brought proceedings against the operator alleging that the operator had contravened the Act by failing, since the dam became operational, to install and operate a fish transfer device suitable for lungfish in contravention of condition 3 of the approval for the dam. In particular, the organisation alleged that the fishways that were installed were ineffective and unlikely to allow normal sized lungfish to move upstream and downstream of the dam without injury, irrespective of the water level in the dam. An interlocutory application by the dam operator to stay the proceedings was dismissed by the Federal Court<sup>9</sup>.

An illustration of a dispute involving the indirect effects of water structures arose in *Minister for the Environment and Heritage v Queensland Conservation Council Inc*<sup>10</sup>. In that case, the Federal Court held the potential impacts of the construction of the

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<sup>9</sup> *Wide Bay Conservation Council Inc v Burnett Water Pty Ltd* [2008] FCA 1900

<sup>10</sup> (2004) 139 FCR 24, upholding *Queensland Conservation Council v Minister for the Environment and Heritage* [2003] FCA 1463

Nathan Dam on the Dawson River in Queensland could include the impacts of the use of water impounded by the dam for irrigation of land for growing cotton and for ginning cotton downstream of the Dam. Such impacts could include pollution of waterways and environmentally sensitive areas from increased nutrients and agricultural pollutants.

### **Impacts of development on the environment**

Development may be carried out in, or in proximity to waters, either terrestrial or marine, and may, by design or by accident, impact on these waters and their biota.

Planning or environmental legislation ordinarily requires some form of environmental impact assessment to accompany an application for approval to carry out a proposed development, as well as requiring the consent authority to consider the impacts of the development on the environment when determining whether or not to approve the development and, if granting approval, on what conditions.

Requiring prior environmental impact assessment and approval are key means of achieving ESD. They promote the principles of ESD, including the principle of integration, the precautionary principle, intergenerational equity and the internalisation of external costs<sup>11</sup>.

Prior environmental impact assessment and approval facilitate achievement of the principle of integration<sup>12</sup>, by enabling the effective integration of environmental, economic and social considerations in decision-making processes<sup>13</sup>.

Prior environmental impact assessment and approval are important components in a precautionary approach. The precautionary principle is intended to promote actions that avoid serious or irreversible damage in advance of scientific certainty of such damage<sup>14</sup>. Environmental impact assessments can help implement the precautionary principle by enabling an assessment of whether there are threats of damage to the environment; enabling an evaluation of the conclusiveness or certainty of the scientific evidence in relation to the environment or the effect of the proposed development on it; enabling informed decisions to be made to avoid or mitigate, wherever practicable, serious or irreversible damage to the environment; and shifting the burden of proof (evidentiary presumption) to persons responsible for potentially harmful activity to demonstrate that their actions will not cause environmental harm<sup>15</sup>.

Requiring prior environmental impact assessment and approval enables the present generation to meet its obligation of intergenerational equity<sup>16</sup> by anticipating and

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<sup>11</sup> *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234 at 245 [67]-246 [71]; and *Gray v Minister for Planning* (2006) 152 LGERA 258 at 291-292 [116]. See also s6 of the *Protection of the Environment Administration Act 1991* (NSW).

<sup>12</sup> *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 at 35 [110]-[112] and P Sands, *Principles of International Environmental Law* (2<sup>nd</sup> ed, Cambridge University Press, 2003), p 253

<sup>13</sup> *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234 at 245 [67]

<sup>14</sup> *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 at 38 [125]-50 [183]

<sup>15</sup> *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234 at 246 [68]

<sup>16</sup> *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 at 36 [116]-[117]

avoiding threats to the environment and thereby ensuring the health, diversity and productivity of the environment is maintained and enhanced for the benefit of future generations<sup>17</sup>.

Finally, prior environmental impact assessment and approval can facilitate the internalisation of external environmental costs<sup>18</sup> by identifying and then including environmental factors in the valuation and costs of assets and services (such as in the price of land), by implementing the user pays or polluter pays principles (those who cause harm to the environment should bear the costs of containment, avoidance or abatement) and by ensuring that users of goods and services should pay prices based on the full life cycle costs of providing goods and services including the use of natural resources and assets (such as water)<sup>19</sup>.

Breach of statutory provisions intended to anticipate and avoid non-approved impacts of development on the environment, including provisions requiring prior environmental impact assessment and approval, have given rise to litigation.

### *Development in waters*

Development may be carried out in waters, both terrestrial and marine, with attendant environmental consequences. Courts have considered such development in judicial review challenges to approvals for development in waters; in merits review appeals, to determine whether approval for such development should be granted; and in civil enforcement proceedings to remedy and restrain breaches of laws by carrying out such development.

In *Central West Environment Council Inc v Orange City Council*<sup>20</sup>, an environmental NGO brought judicial review proceedings challenging a development consent granted by the Council for the development of a rowing course and associated buildings on Spring Creek Reservoir at Orange. The Reservoir was 110 hectares and habitat of threatened fauna species, including the Freckled Duck, the Blue Billed Duck and the Australasian Bittern. The grounds of the challenge related to the adequacy of the environmental impact assessment of the proposed development's likely impacts on the threatened fauna species and the consent authority's consideration of the likely impacts. The challenge was unsuccessful.

In *St Ives Development Pty Ltd v City of Mandurah*,<sup>21</sup> the former Western Australian Town Planning Appeal Tribunal, in a merits review appeal, held that application of the precautionary principle, one of the principles of ESD, dictated that the proposal to convert a seasonally inundated wetland into a permanent wetland should be approved only for a trial period, in order to allow the proposal and its impacts (including potential algal blooms and odours) to be assessed scientifically. Such a precautionary approach safeguards ecological space or creates environmental room to manoeuvre. One reason for doing so is to implement a step-wise or adaptive management approach, whereby uncertainties are acknowledged and the area

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<sup>17</sup> *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234 at 246 [69]

<sup>18</sup> *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 at 37 [119]

<sup>19</sup> *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234 at 246 [70]

<sup>20</sup> (2003) 128 LGERA 169

<sup>21</sup> [2003] WATPAT 5

affected by the development plan, program or project is expanded as the extent of uncertainty is reduced<sup>22</sup>.

In *BGP Properties Pty Ltd v Lake Macquarie City Council*,<sup>23</sup> the Land and Environment Court of NSW, again in a merits review appeal, applied the precautionary principle to refuse development consent to the subdivision and industrial development of land that included the Jewells Wetland near Redhead, NSW. The wetland was part of a threatened ecological community, Sydney Freshwater Wetland which was listed under the *Threatened Species Conservation Act 1995* (NSW). The proposed development would have removed 30% of that threatened ecological community and, in time, indirect effects would have removed it entirely. The proposed development would also have raised the water table which would have been likely to have an adverse effect on a threatened species of flora, *Tetrathea juncea*.

In the *Greentree* litigation, the Minister for the Environment and Heritage brought civil enforcement proceedings against a wheat farmer and his agricultural company who had cleared native vegetation in a declared Ramsar wetland, the Gwydir Wetlands in NSW, contrary to the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). The Federal Court restrained them from carrying out further activities in the wetlands, including farming activities, and ordered them to undertake remedial works in the nature of tree planting of the wetlands and pay pecuniary penalties<sup>24</sup>.

An illustration of development in marine waters raising ESD issues is the tuna farm case in South Australia<sup>25</sup>. An environmental NGO appealed by way of merits review, against the decision of the Development Assessment Commission to grant development consent to the establishment of tuna farms in the waters of Louth Bay in Spencer Gulf, South Australia. The appellant contended that consent should be refused on a number of grounds including that the development was not ecologically sustainable. The Environment Resources and Development Court assessed the proposed development against the principles of ESD, in particular the precautionary principle, and concluded that the appeal should be upheld and development consent refused. On appeal, the South Australian Supreme Court rejected the submissions of the unsuccessful proponent of the tuna farm, first, that it was not for the court, but only for the Minister, to determine whether the proposed development would be operated in an ecologically sustainable manner and, secondly, that the burden of proof should be on the objector to show that damage to the environment would result

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<sup>22</sup> See *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 at 46 [162]-[165]; *Environmental Planning Authority v Ballina Shire Council* (2006) 148 LGERA 278 at 290 [74]-291[76]; *Ulan Coal Mines Ltd v Minister for Planning* (2008) 160 LGERA 20 at 40 [99]

<sup>23</sup> (2004) 138 LGERA 237

<sup>24</sup> See *Minister for the Environment and Heritage v Greentree (No 2)* (2004) 138 FCR 198 and *Minister for the Environment and Heritage v Greentree (No 3)* (2004) 136 LGERA 89, upheld on appeal in *Greentree v Minister for the Environment and Heritage* (2005) 143 LGERA 1.

<sup>25</sup> *Conservation Council of South Australia Inc v Development Assessment Committee and Tuna Boat Owners Association (No 2)* [1999] SAERDC 86 affirmed in part, reversed in part by the Supreme Court of South Australia in *Tuna Boat Owners Association of South Australia Inc v Development Assessment Commission* (2000) 110 LGERA 1

from the proposed development rather than for the proponent to show that damage would not result<sup>26</sup>.

Another illustration of contentious development in marine waters is found in the *Blue Wedges* case. This litigation involved judicial review challenges to the decision to approve the dredging and deepening of shipping channels in Port Phillip Bay and the Yarra River in Victoria. The applicant, Blue Wedges Inc, was concerned that the proposed action was likely to impact on declared Ramsar wetlands within Port Phillip Bay including its listed threatened and migratory species. The grounds of the challenge related to the alleged inadequacy of information before the decision maker<sup>27</sup> and the alleged failure of the decision maker to consider the principles of ESD<sup>28</sup>. The challenges were unsuccessful.

### *Development near waters*

Development may also impact on water resources or water dependent biota or ecological communities when carried out in proximity to such sources of water. In *Gerroa Environment Protection Society Inc v Minister for Planning and Cleary Bros (Bombo) Pty Ltd*<sup>29</sup>, the extension of a sand mine could potentially have impacted on groundwater and groundwater dependent ecological communities and, in particular, on a Swamp Sclerophyll Forest, a type of endangered ecological community dependent on ground and surface waters. After a hearing involving considerable hydrological and ecological expert evidence, the Land and Environment Court of NSW determined to grant development consent to the extension but imposed strict conditions requiring the collection of base data, ongoing monitoring and adaptive management to mitigate any potential adverse impacts. Significant biodiversity offsets were required to compensate for the loss of biodiversity caused by the extension<sup>30</sup>.

### *Pollution of waters*

The carrying out of development proximate to waters may, by design or by accident, cause pollution of the waters. Pollution of waters involves an environmental offence in every State of Australia. For example, in NSW, pollution of waters is an offence against s120 of the *Protection of the Environment Operations Act 1997*. In sentencing offenders for environmental offences, the sentencing court may take into account the principles of ESD, including the polluter pays principle<sup>31</sup>. The polluter pays principle is an economic rule of cost allocation. Its source is in the economic theory of externalities. The principle involves the polluter taking responsibility for, or internalising, the external costs (environmental, economic and social) arising from

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<sup>26</sup> *Tuna Boat Owners Association of South Australia Inc v Development Assessment Commission* (2000) 110 LGERA 1 at 10 [48] and 6 [27]-7 [30] respectively

<sup>27</sup> *Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* (2008) 165 FCR 211

<sup>28</sup> *Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* (2008) 157 LGERA 428

<sup>29</sup> [2008] NSWLEC 173

<sup>30</sup> *Gerroa Environment Protection Society Inc v Minister for Planning and Cleary Bros (Bombo) Pty Ltd* [2008] NSWLEC 173 (primary judgment) and [2008] NSWLEC 254 (judgment on conditions of consent)

<sup>31</sup> *EPA v Waste Recycling and Processing Corporation* (2006) 148 LGERA 299 at 341.

the polluter's pollution<sup>32</sup>. Under the polluter pays principle, the polluter should pay for the costs of:

- preventing pollution or reducing pollution to comply with applicable standards and laws;
- preventing, controlling, abating and mitigating damage to the environment caused by pollution; and
- making good any resultant environmental damage, such as cleaning up pollution and restoring the environment damaged and making reparation (including compensatory damages and compensatory restoration) for irreparable injury.

An example of a sentencing court taking into account the polluter pays principle can be found in the Land and Environment Court of NSW's decision in *Environmental Protection Authority v Waste Recycling and Processing Corporation*<sup>33</sup>. Toxic pollutants from a landfill entered a nearby creek causing serious environmental harm, including loss of aquatic life. In sentencing the offender, the Court took into account the polluter pays principle. The Court noted:

“Sustainable and economically efficient development of environmental resources requires internalising the costs of preventing and controlling pollution as well as any environmental harm itself. This is the polluter pays principle. The polluter ought to pay for the costs of remedying any on-going environmental harm caused by the polluter's conduct. This can be done by the polluter cleaning up the pollution and restoring the environment as far as practicable to the condition it was before being polluted. The polluter ought also to make reparation for the irreparable harm caused by the polluter's conduct such as the death of biota and damage to ecosystem structure and functioning”.<sup>34</sup>

Pollution of waters can also occur from diffuse sources. Extraction of water for irrigation may result in increased salinity when excess or unused water drains back to the water source. The Murray River, for example, is more saline in its downstream stretches in South Australia than upstream in New South Wales or Victoria. The risk of increased salinity in the Murray River prompted the State of South Australia to intervene in proceedings before a Local Land Board in New South Wales and a subsequent appeal to the Land and Environment Court of NSW, concerning applications by irrigators to irrigate some 541 hectares with water from the Darling River. South Australia was concerned about the possible or probable return to the lower Darling River, of waters with increased salinity, which might be released to irrigators of lands having frontage to that river. The concern of that State was that the adverse consequences of such increased salinity would be manifested in South Australia. The Land and Environment Court held that South Australia had a

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<sup>32</sup> BJ Preston, 'Ecologically sustainable development in the context of contaminated land' (2008) 25 EPLJ 164 at 176-177

<sup>33</sup> (2006) 148 LGERA 299

<sup>34</sup> (2006) 148 LGERA 299 at 341 [230]. See also *Environmental Protection Authority v Lithgow City Council* [2007] NSWLEC 695 at [66]-[70]

right to be heard in opposition to the granting of the applications, but that, on the evidence before the Court, the water could be released to the applicants without harm to the objectors or other irrigators or to the river system by reason of increased salinity<sup>35</sup>.

### **Impact of the environment on development**

Development cannot only impact on the environment; the environment can also impact on development. Development may be impacted by hydrological conditions, both current and likely future conditions. Achieving sustainability involves assessment of, and adaptation to, hydrological conditions.

In *Mandalong Progress Association Inc v Minister for Planning*,<sup>36</sup> the Minister for Planning granted development consent to an underground coal mine on conditions that included that a flood study be prepared assessing any potential future flood hazard resulting from the mining activity. The Land and Environment Court of NSW enforced compliance with the conditions.

*Walker v Minister for Planning*<sup>37</sup> involved a judicial review challenge to the decision of the Minister of Planning to approve a concept plan for the subdivision and residential development of the flood prone, coastal land at Sandon Point, on the south coast of New South Wales. One of the grounds of challenge was that the Minister for Planning had failed to take into account the effect that climate change might have on increasing the flood risk for development on the land. The Land and Environment Court of NSW upheld the challenge, holding that the Minister was obliged to take into account the effect that climate change might have on increasing the flood risk for development on the flood prone coastal land<sup>38</sup>. On appeal, the NSW Court of Appeal reversed the result but upheld certain aspects of the reasoning of the Land and Environment Court concerning the need to take into account the public interest and the principles of ESD, when determining development applications<sup>39</sup>.

### **Sustainable use of water**

Achieving sustainability in the use of water resources has been the subject of much litigation. Litigation has been of the following types. First, legislation may re-allocate water resources between users through the means of water allocation plans. Disaffected water users may challenge in the courts the new water allocation plans. Secondly, new schemes for water allocation may be inhibited by existing use rights. Existing users may seek to be excluded from the changed regime by claims of existing use rights. Thirdly, legislation may regulate water use, and improve the valuation and pricing of water resources. Contravention of the regulatory regime may be an offence and result in criminal sanctions. Fourthly, where there is uncertainty concerning the supply of and demand for water resources, a

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<sup>35</sup> *Water Resources Commission of NSW v State of South Australia*, unreported, LEC Nos 30119-30131, 30144 of 1980, 9 October 1981, Perrignon J

<sup>36</sup> (2003) 126 LGERA 408

<sup>37</sup> (2007) 157 LGERA 124

<sup>38</sup> *Walker v Minister for Planning* (2007) 157 LGERA 124 at 192 [166]

<sup>39</sup> *Minister for Planning v Walker* (2008) 161 LGERA 423

precautionary approach is prudent in determining future water use. This may involve approving water use on conditions requiring monitoring of water supply and demand and adaptive management. Fifthly, where there is greater certainty that water use will be unsustainable, a preventative approach is warranted, preventing unsustainable use of water resources. Finally, achieving sustainability of water use is not restricted to rural areas; it is equally important in an urban context. Illustrations of cases involving these types of matters are considered below.

#### *Water allocation plans intended to achieve sustainability of water resources*

All developments generate a demand for water, although to varying degrees. In rural areas, water intensive developments, such as those for irrigated cropping purposes, generate large demands for water. Indeed, in 2000-2001, just over two thirds of water consumed in Australia was used by irrigated agriculture<sup>40</sup>. Poor government administration has resulted in the unsustainable use of water resources, including over allocation of water licences relative to supply of both surface and groundwater resources and has led to a lack of environmental flows to sustain water dependent biodiversity and ecosystems. State and Federal Governments in Australia have enacted comprehensive water legislation in an endeavour to ensure that the limited water resources available are being used more sustainably than before. One of the key elements of such water legislation is the preparation and adoption of new water allocation plans, which determine water access entitlements, to better achieve sustainability. New water allocation plans create winners and losers amongst existing and future water users, with the parties adversely affected often attempting to challenge water allocation plans in the courts.

In *Murrumbidgee Horticulture Council Inc v Minister for Land and Water Conservation*<sup>41</sup>, the overall aim of the water sharing plan was to achieve a 'water cap' directed to reducing water extraction in the Murray Darling Basin in order to achieve better water quality, increased environmental flows and improved habitat protection. One provision of the plan inhibited dealing in water allocations if the application was received after a certain time. This strategy implemented the plan's aim. Disaffected, high use irrigators challenged the plan. However, their judicial review challenge was rejected by the Land and Environment Court of NSW.

In *Michelmore v Minister for Environment and Conservation*<sup>42</sup>, the South Australian Supreme Court held that the regime that all existing, non-licensed water users needed to apply for a licence to use water within a set timeframe, after which their applications would be dealt with under the new water allocation plan, was an exception to the ordinary scheme aimed at strictly confining the use of limited water resources. Thus the timeframe was not a mere procedure over which the Minister, the Environment Resources and Development Court or the South Australian Supreme Court could exercise discretion.

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<sup>40</sup> 2006 Australia State of the Environment Committee, *Australia State of the Environment Report 2006*, Section 3.2 'Water Use'

<sup>41</sup> (2003) 127 LGERA 450

<sup>42</sup> (2004) 137 LGERA 306

In *Murrumbidgee Groundwater Preservation Association Inc v Minister for Natural Resources*<sup>43</sup>, a judicial review challenge by disaffected irrigators to the validity of the water sharing plan for the lower Murrumbidgee groundwater source was rejected. The plan was enacted to ensure the sustainable use of a limited resource, by reducing the usage of water from previous unsustainable levels.

In *Nature Conservation Council of New South Wales Inc v Minister Administering the Water Management Act 2000*<sup>44</sup>, the Gwydir River Water Sharing Plan was unsuccessfully challenged on grounds that the plan failed to conform with the *Water Management Act 2000* (NSW) by not containing performance indicators and an environmental water rule<sup>45</sup> for environmental health water to benefit the Gwydir Wetlands.

In *Harvey v Minister Administering the Water Management Act 2000*<sup>46</sup>, the Minister's amendment of a water sharing plan by introducing a formula involving reductions in water entitlements for existing users based on historical extractions of groundwater, was unsuccessfully challenged. The Land and Environment Court of NSW found that the legislative nature of the power to amend the plan was inconsistent with the application of a duty of procedural fairness. Hence, the Minister was not under a duty of procedural fairness to provide every licence holder with an opportunity to present an individual case before amending the plan<sup>47</sup>.

In *Arnold v Minister Administering the Water Management Act 2000*<sup>48</sup>, the applicants, who held groundwater extraction entitlements under the *Water Act 1912* (NSW), had their entitlements reduced by the *Water Management Act 2000* (NSW) and the *Water Sharing Plan for the Lower Murray Groundwater Source 2006*. These reductions were made in the context of a national water sustainability arrangement involving Commonwealth legislation, the *Natural Resources Management (Financial Assistance) Act 1992* (Cth) and the *National Water Commission Act 2004* (Cth), and Commonwealth/State agreements, including a funding agreement of November 2005 between the Commonwealth and the State of NSW. The applicants challenged the validity of the water sharing plan and the Commonwealth legislative scheme in the Land and Environment Court of NSW. The Commonwealth sought dismissal of the proceedings against it. The Land and Environment Court of NSW dismissed the proceedings against the Commonwealth, for want of jurisdiction, as well as on other grounds<sup>49</sup>. The NSW Court of Appeal dismissed an appeal against the Land and Environment Court's decision<sup>50</sup>.

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<sup>43</sup> (2005) 138 LGERA 11, upholding *Murrumbidgee Ground-Water Preservation Association v Minister for Natural Resources* [2004] NSWLEC 122

<sup>44</sup> (2005) 137 LGERA 320 (NSW Court of Appeal), dismissing an appeal from the Land and Environment Court of NSW in *Nature Conservation Council of New South Wales Inc v Minister for Sustainable Natural Resources* (2004) 133 LGERA 168

<sup>45</sup> Environmental water rules are rules for the identification, establishment and maintenance of classes of environmental water: see s8(2) of the *Water Management Act 2000* (NSW).

<sup>46</sup> (2008) 160 LGERA 50

<sup>47</sup> The decision is currently under appeal with the NSW Court of Appeal

<sup>48</sup> (2007) 157 LGERA 379 (Land and Environment Court of NSW) and [2008] NSWCA 338 (NSW Court of Appeal)

<sup>49</sup> *Arnold v Minister Administering the Water Management Act 2000* (2007) 157 LGERA 379

<sup>50</sup> *Arnold v Minister Administering the Water Management Act 2000* [2008] NSWCA 338

In *Minister for Environment and Conservation v Simes*<sup>51</sup>, the South Australian Supreme Court, overturning the decision of the Environment Resources and Development Court<sup>52</sup>, held that the whole purpose and effect of the water licensing regime was to control and reduce extractions from the water resource to sustainable levels<sup>53</sup>. There was no provision in the water allocation plan for allocating water beyond that which had been allocated before the commencement of the plan<sup>54</sup>. The fact that actual allocations were below the maximum available did not give the Minister for the Environment and Conservation or the Environment Resources and Development Court authority to make an additional allocation. That was not authorised by the Plan nor was it consistent with the Plan<sup>55</sup>.

#### *Existing use rights may inhibit sustainability*

Where there is a change of policy and/or law restricting or reallocating water use rights so as to better achieve sustainability of use, an exception can be made for existing users of water. Strict interpretation and application of any exception for existing users may be necessary to ensure that the purpose of the policy and any legal reform is not frustrated.

In *Minister for Environment and Conservation v Wylie Group Pty Ltd*<sup>56</sup>, the applicant had taken water to irrigate lucerne but sought instead to take water to irrigate olive trees. In order to be an existing user for this purpose, the applicant had to be legally committed to the proposal to grow olive trees. The South Australian Supreme Court held that the applicant was not legally committed and, hence, was not an existing user.

#### *Regulating and charging for water use implements sustainability*

Sustainable use of water resources includes the regulation of and charging for use of water. Use of water contrary to the regulatory regime is an offence under water legislation. In *Murray Irrigation Limited v ICW Pty Ltd and Meares Nominees Pty Ltd*<sup>57</sup>, irrigators were held, under the *Water Management Act 2000* (NSW), to be vicariously liable for actions of their employee in raising out of its emplacement in a water channel, a dethridge wheel which regulated and metered the inflow of water. The consequence was that water flowed from the main supply channel to the irrigators' landholdings without being regulated or metered.

#### *Precautionary approach where there exists uncertainty in water resources and use*

Often, there is uncertainty as to the supply of water resources, both current as well as future water resources, particularly having regard to climate change. A precautionary approach to deal with such uncertainty is prudent and implements

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<sup>51</sup> (2007) 153 LGERA 225

<sup>52</sup> *Simes v Minister for Environment and Conservation* (2006) 152 LGERA 16

<sup>53</sup> (2007) 153 LGERA 225 at 236 [46]

<sup>54</sup> (2007) 153 LGERA 225 at 236 [46]

<sup>55</sup> (2007) 153 LGERA 225 at 236 [47]

<sup>56</sup> (2005) 91 SASR 242, reversing *Wylie Group Pty Ltd v Minister for Environment and Conservation* [2004] SAERDC 69

<sup>57</sup> [2005] NSWLEC 304

ecologically sustainable development. A precautionary approach may involve approving use of water resources subject to conditions that require monitoring and adaptive management.

In *Ulan Coal Mines Ltd v Minister for Planning*<sup>58</sup>, a neighbouring coal mine challenged the Minister for Planning's consent to a new coal mine on grounds including that a condition of the consent, requiring that the new mine must have sufficient water for all stages of the project, was uncertain and manifestly unreasonable. The Land and Environment Court of NSW rejected the challenge, holding that the Minister had adopted a precautionary approach by requiring monitoring of the water supply and use of an adaptive management approach, notably by requiring an adjustment of the scale of mining operations (and hence of the demand for water) to match the available water supply. Such an adaptive management response was considered appropriate to dealing with any uncertainty arising from potential impacts<sup>59</sup>.

In *David Kettle Consulting Pty Ltd v Gosford City Council*<sup>60</sup>, the Land and Environment Court of NSW refused to make permanent a development consent for the extraction of groundwater for bottling, which had been granted for a trial period, but rather granted consent for a further trial period until 2011. The Court imposed conditions requiring the monitoring of the extraction so that, on any application for renewal in 2011, the relevant authority would have more information to assess the impacts of the extraction. In so doing, the Court adopted a precautionary approach, recognising the uncertainty in the data as well as considering the impacts of climate change on future water resources.

In *Rowe v Lindner (No 2)*<sup>61</sup>, the South Australian Supreme Court upheld a decision of the Environment Resources and Development Court refusing a proposal for a feedlot which would use considerable volumes of groundwater and expose the catchment to a significant risk of overuse and consequential harm. The South Australian Supreme Court noted that the evidence of certain experts, whilst insufficient to support a conclusion of unsustainable water use, was sufficient to support a conclusion of significant risk of serious harm due to water overuse, coupled with current scientific uncertainty about the extent of environmental harm, thereby attracting the precautionary principle<sup>62</sup>.

#### *Preventative approach where water use is unsustainable*

Where a proposed development will unsustainably use water resources, a preventative approach is appropriate and development consent may properly be refused. In *Mercer v Moorabool Shire Council*,<sup>63</sup> the Victorian Civil and Administrative Appeals Tribunal refused a permit to enlarge two dams which would reduce flows into a nearby creek. Evidence showed that the catchment was already

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<sup>58</sup> (2008) 160 LGERA 20

<sup>59</sup> *Ulan Coal Mines Ltd v Minister for Planning* (2008) 160 LGERA 20 at 40 [99]

<sup>60</sup> [2008] NSWLEC 1385

<sup>61</sup> [2007] SASC 189

<sup>62</sup> See also earlier litigation in *Rowe v Linder* (2006) 146 LGERA 100

<sup>63</sup> (2002) 122 LGERA 402

overcommitted and that the ecology of watercourses in the area was being seriously adversely affected.

### *Sustainability of water use within an urban context*

Achieving sustainability in the use of water resources, is also relevant for urban development. Governments have sought to increase the sustainability of the use of water in an urban setting by introducing codes and practices such as BASIX<sup>64</sup> in NSW or NatHERS<sup>65</sup> at the Commonwealth level. Issues concerning the sustainability of use of water resources in urban development have been raised in the courts.

In *T & K Berry v Wollongong Council*<sup>66</sup>, the Land and Environment Court of NSW, on a merits review appeal, approved an ecotourism facility. The development incorporated features intended to ensure that it would be ecologically sustainable, including solar hot water, recycling and reuse of grey water and capture and reuse of rainwater from rooves.

In *Drake-Brockman v Minister for Planning*<sup>67</sup>, the Land and Environment Court of NSW rejected a judicial review challenge to the Minister for Planning's approval of a concept plan for a large urban development on the former Carlton United Breweries' site at Chippendale, in inner Sydney. The Land and Environment Court rejected the applicant's submission that the Minister's consideration of the principles of ecologically sustainable development was inadequate. The Minister had imposed conditions of approval, including that all future development was required to meet nominated standards for water use, waste water reuse and energy consumption and also comply with BASIX, the provisions of which are directed to implementing consistent standards across NSW to reduce water use and greenhouse gas emissions.

### **Conclusion**

The National Water Initiative had, as a general objective, the creation of "a nationally-compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes"<sup>68</sup>. This objective accords with the principles of ESD. The implementation of this objective, through the legislative regimes in the States and federally, will continue to give rise to litigation in the courts. The courts will have an important role to play in explicating, upholding and enforcing the law in relation to the sustainable use of Australia's water resources. As Australia's water resources become scarcer – dwindling in droughts and suffering under the effects of

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<sup>64</sup> Building Sustainability Index, introduced through the State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 (NSW)

<sup>65</sup> Nationwide House Energy Rating Scheme. NatHERS is an initiative of the Ministerial Council on Energy, which provides a framework that allows various computer software tools to rate the potential energy efficiency of Australian homes by defining the minimum set of information that must be used by all software tools of this kind, <<http://www.nathers.gov.au/about/index.html>> at 23 March 2009.

<sup>66</sup> [2008] NSWLEC 210

<sup>67</sup> [2007] NSWLEC 490

<sup>68</sup> *Intergovernmental Agreement on a National Water Initiative* (2004), cl 23

climate change – whilst the demand for water continues to increase<sup>69</sup>, the role of the courts in litigation is only likely to increase.

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<sup>69</sup> *Australia State of the Environment 2006*, Section 3.2 'Water Use'