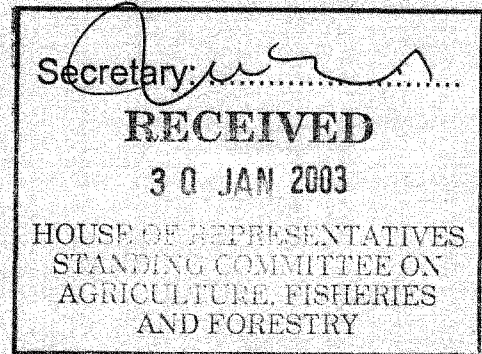


Queensland
Conservation
Council

protect, conserve, sustain

20 January 2002

Ian Dundas
Committee Secretary
House of Representatives
Standing Committee on Agriculture, Fisheries and Forestry
R1 110
Parliament House
CANBERRA ACT 2600



Dear Mr Dundas

Inquiry into future supplies for Australia's rural industries and communities

Please find enclosed a submission by the Queensland Conservation Council to the Inquiry into future supplies for Australia's rural industries and communities.

We apologise for the lateness of our submission. However, we have been assured that the Committee will consider late submissions.

QCC representatives are available to appear at hearings of the Committee.

We wish the Committee all the best in considering the very complex and challenging issue of rural water use.

Yours sincerely

per 

Felicity Wishart
Coordinator



Inquiry into future supplies for Australia's rural industries and communities

Queensland Conservation Council

*Submission to the Standing Committee
on Agriculture, Fisheries and Forestry
January 2003*

(a) The role of the Commonwealth in ensuring adequate and sustainable supply of water in rural and regional Australia

Rural and regional water issues are of national significance, particularly the environmental degradation and loss of biodiversity the nation is suffering due to inappropriate agricultural practices and use of water. Some of the current problems associated with rural water use include land clearing, salinity, water over-allocation, eutrophication, sedimentation and loss of biodiversity. One of the impediments to solving these problems has been the state hegemony over natural resources management, which has resulted in inconsistent and politically motivated decision-making, pandering to those with vested interests in exploitation of natural resources. Resolution of nationally significant problems requires strong Commonwealth leadership.

Significant state-based water reforms have been implemented through the CoAG process. For example, Queensland has embarked upon a comprehensive water planning process based upon scientific assessments of environmental flow requirements. However, the reforms have been piecemeal, inconsistently applied and are not adequate to deal with the current problems. In addition, current existing Commonwealth programs, such as the National Action Plan for Salinity and Water Quality (NAP) and the Natural Heritage Trust (NHT), are being undermined by state regimes permitting agricultural practices which worsen the very problems the programs are designed to address. The most obvious example in Queensland is land clearing, which causes the salinity and loss of biodiversity ostensibly being tackled through the NAP and NHT. It is a grave misuse of taxpayer

funds for the Commonwealth to be funding problem mitigation without requiring that the causes of the problems be resolved.

QCC recommends that in recognition of the national significance of rural and regional water issues the Commonwealth take a lead policy and regulatory role. This should be implemented through the development of a national water policy and the establishment of an independent federal body to implement such a policy, coordinate/develop solutions to the problems and monitor/audit progress. The national policy would provide a blueprint for future approaches to water resources, setting out clear goals with funding for states linked to achievement of milestones. It would considerably expand the scope of the CoAG Water Resources Policy by providing a much more comprehensive and integrated approach to water, including all aspects of the total water cycle and water systems (eg efficiencies, savings, alternative technologies). It would mean that the Commonwealth government would take a lead role in requiring and promoting sustainable agricultural industries through taxation reform, community education, research and development of alternative sustainable rural industries and economic systems which properly value the natural environment, e.g. by requiring more appropriate pricing of water resources.

As well as promoting much more sustainable use of existing water resources, there are important roles for the Commonwealth in protecting the environmental values of the nation's rivers, including the remaining wild and natural rivers. QCC recommends that the Commonwealth implement a policy framework for protecting remaining pristine unregulated rivers – as an invaluable national asset, which should be protected for future generations. We also recommend the reinstatement of a Wild Rivers Unit within Environment Australia to facilitate necessary policy development and implementation.

This approach to wild river protection is consistent with the recommendation of the Prime Minister's Science, Engineering, and Innovation Council, and of Professor Peter Cullen, formally of the CRC for Freshwater Ecology, that Australia set up a National System of Heritage River Reserves. Such a system would have a number of benefits including:

- provision of a benchmark reference against which to assess regulated river systems;
- protection of Australia's freshwater species, many of which have been lost from southern states, and their often irreplaceable genetic material and ecosystem services;
- provision of 'seeding' sources to help re-colonise and re-stock degraded river systems;
- assisting Australia meet its international obligations such as required under the International Convention on Biological Diversity, the Ramsar Convention etc;
- protection of Australia's fisheries against further economic and social deterioration caused by reduced water quality, changed flow regime, and degraded nursery habitat;
- provision of eco-tourism attractions and wilderness experiences being increasingly sought after by the international and national community; and

- protection of indigenous cultural and spiritual relationships with existing waterways.

QCC also recommends that the Commonwealth should directly assess the impacts of any major proposed new water infrastructure through the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). That is, environmental flows and river health should be regarded as a matter of national environmental significance under the EPBC Act and major water infrastructure projects, including associated land use, should trigger assessment.

To resolve current problems associated with rural water use will require substantial new funding. Therefore, one of the Commonwealth's priorities must be to determine appropriate sources of revenue. QCC contends there are a number of approaches which could be integrated to raise funds, including an environmental levy, taxation reform which provides taxation relief for sustainable practices and taxes unsustainable practices and provides taxation benefits for investment in environmental projects, as well as diversion of funds which currently support unsustainable land use practices. QCC recommends that a sustainability audit of Commonwealth funding for natural resource management be undertaken to identify potential existing sources of funding. It is critical that we progress beyond the current federal-state battles over who pays for reform of natural resource management – for example, as experienced with land clearing in Queensland – and work out clearer formulae for funding responsibilities.

(b) Commonwealth policies and programs, in rural and regional Australia that could underpin stability of storage and supply of water for domestic consumption and other purposes.

(c) The effect of Commonwealth policies and programs on current and future water use in rural Australia.

Long-term stability of storage and supply of water in rural and regional Australia is dependent upon healthy catchments. Economic activity which degrades the environment will inevitably end up costing Australia far more than is gained in short-term economic exploitation of natural resources. Therefore, there needs to be a primary focus in Commonwealth policies and programs on providing for healthy catchments – protecting healthy catchments and restoring degraded catchments. This will require extensive reform of land use practices and planning to ensure that agricultural activities are appropriate to the climate and environment of particular locales.

Existing Commonwealth policies and programs are not effectively addressing the root causes of our problems with rural water use. While some progress has been made through implementation of CoAG water reforms, the root causes of environmental degradation and loss of biodiversity are not being addressed by the Commonwealth. Thus, many existing Commonwealth programs are misdirected and wasteful of taxpayer funds.

The most critical problem which the Commonwealth needs to address to make any real progress in land use reform is land clearing. The Commonwealth should immediately enter into negotiations with the Queensland and NSW governments about the most effective way of stopping land clearing in 2003. This would include funding to assist landholders to adjust to changed regimes.

Another priority is to require and promote much wiser use of existing water resources. Australia has the highest per capita storage of water in the world and water use is profligate in stark and ludicrous contrast to our status as the driest continent in the world. The National Land and Water Resources Audit *Australian Water Resources Assessment 2000* found that mean annual water use for irrigation increased from 10 200 ML in 1983/84 to 17 935 ML in 1996/97, a 76% increase in just over a decade. This level of extraction is not sustainable and the dramatic increase in irrigation is of major concern. Much of this irrigated agriculture is not even of economic benefit to the nation – the direct costs of water are usually subsidised by the community and the costs of rehabilitation due to the effects of irrigation will far outweigh the economic benefits. We also note that the benefits of water storages are not equally distributed; for example, a large proportion of Australia's indigenous population is living without water which meets WHO health standards.

There are a number of ways in which the Commonwealth government could require and promote much more efficient use of existing water resources. For example, water use efficiency could be one of the criteria by which states are assessed on water reform by the National Competition Council (NCC). In addition, through the NCC assessment of new rural water infrastructure, it could be required that existing water use meet certain standards of efficiency before any new rural water infrastructure would be approved.

It is also critical that the CoAG agreement that all water infrastructure should be ecologically sustainable and economically viable be fully implemented. The community has paid enormous amounts of money for most water infrastructure in Australia. Rather than subsidising inefficient and environmentally damaging use of water, taxpayer funds should be spent on repairing the mistakes of the past and preventing future mistakes. As recommended above, the Commonwealth should also assume a direct assessment and approval role for major water infrastructure under the EPBC Act. The trigger could be a certain level of change in environmental flows or certain size of storage. As part of such assessment, alternatives to major infrastructures – such as more efficient use of existing water resources and more appropriate forms of agriculture – should be assessed. We provide below a brief case study of an existing proposal for new water infrastructure in Queensland to demonstrate the inadequacies of current approaches.

Australians have a major repair job ahead of us if we are to maintain the capacity of our land to sustain us – at least \$65 billion over 10 years, according to the assessment commissioned by the National Farmers Federation and the Australian Conservation Foundation. A large component of this repair job is restoration of the health of our aquatic environments and catchments. The *Australian Catchment, River and Estuary Assessment 2002* by the National Land and Water Resources Audit found that 20% of

Australian catchments are in the lower to lowest condition class and only 30% are in highest condition class. They observed that there will be continued decline of 15-25% of catchments "because of the long-term nature of environmental processes and degree of change in the catchment". In intensively used catchments, there has been significant impairment of aquatic life, extensive regulation of flow, loss and degradation of riparian vegetation, loss of wetlands, increased loads of nutrients and sediments and toxic chemicals. QCC recommends that the Commonwealth government develops a long-term adequately resourced plan for restoration of degraded river systems.

Australia also has a major repair job associated with the Great Artesian Basin (GAB). While some progress has been made in the program of capping bores, resolution of the problem requires a much more strategic and well-resourced approach. Capping of bores should be required rather than optional, with substantial funding assistance to landholders. This needs to be coupled with a program to strategically reduce water availability in large areas of the arid and semi-arid zones in order to protect biodiversity at risk from the large-scale watering of these areas. In addition, there needs to be a high-priority focus on protection of natural GAB springs, which have suffered extensive loss and degradation, due to reduced water pressure from the GAB and inappropriate land uses. These springs are extremely valuable sites with very high levels of endemic wildlife and high cultural values for traditional owners.

As QCC has recommended, such natural resource and conservation priorities should be addressed through a national water policy. Only through such an integrated holistic approach can ad hoc proposals such as the Pratt proposal to pipe all water be properly assessed. While QCC is supportive of the principle of efficiency underpinning the proposal, we believe it has to be assessed in the context of other reforms which may provide better outcomes in terms of cost-benefit analysis. A national policy approach would considerably expand on the scope and effect of the CoAG Water Resources Policy, which fails to explicitly deal with protection and restoration of riverine habitats, wetlands, floodplains, estuaries, and groundwater-dependent ecosystems, and does not promote integrated and holistic natural resource management.

Following is a case study of the proposed Paradise Dam in Queensland, as an example of some of the deficiencies in current state-dominated approaches to water.

Paradise Dam – one example of what is going wrong with water in Queensland

The Queensland government is proposing to start construction of the 300 000 ML Paradise Dam (or the Burnett River Dam) on the Burnett River in 2003. Despite strong evidence that it will be highly environmentally damaging and not economically viable, it has been approved by both state and federal governments.

The main driver for the project is that it was an election commitment by the Beattie government – an election commitment made to appease the sugar cane lobby in Queensland's most marginal electorate.

Here we provide an outline of some of the problems with this project and examine the role of the Commonwealth government in allowing/facilitating the project.

Ecological sustainability

The Burnett system already has more than 30 dams and weirs, with a capacity to capture about half of average annual flows. Paradise Dam would inundate another 45 km of the Burnett, with the cumulative result of this and existing infrastructure being that 70% of the lower Burnett would cease to flow. The Paradise Dam project is widely regarded as being environmentally unsustainable. For example, the independent scientific body advising the Queensland government on the Burnett Water Allocation Management Plan (now the Burnett Water Resource Plan) concluded that the Paradise Dam proposal in conjunction with a number of weir projects was "likely to have major/very major impacts on geomorphic and/or ecological conditions within the river". The dam will flood very important habitat for the threatened lungfish, which exists naturally only in this and the Mary River system, as well as other species including an unnamed species of *Elseya* turtles, which also have very restricted distribution. The dam will flood 100 ha of an endangered vegetation community as well as facilitate clearance of other valuable remnants of native vegetation. The expansion (whether horizontal or vertical) of irrigated agriculture facilitated by the dam will also have significant adverse environmental impacts; for example, increasing the risks of salinity in a salinity-prone region.

Economic viability

The direct construction costs of Paradise Dam will be more than \$200 million. This figure does not include other direct costs, such as road and bridge costs, or indirect costs, such as impacts on commercial and recreational fisheries, and salinity mitigation, let alone costs to the environment such as loss of one of the few remaining stretches of productive habitat for the threatened lungfish and loss of endangered regional ecosystems.

The major beneficiaries of Paradise Dam will be sugar cane growers. Yet the industry in the Burnett region, even more than elsewhere in Queensland, is currently not viable. The Hildebrande report on the sugar industry found that the costs of production of cane in the southern region, which includes the Burnett, was about \$35 per tonne of cane. Recent

world sugar prices translates to a cane price of about \$24-27 per tonne cane and has ranged to less than \$20 per tonne in recent years. It is clear that cane growers will not be able to pay the costs of constructing this dam. If the expected yield of 130 000 ML water was to be distributed amongst the >1000 existing irrigators in the Bundaberg Irrigation Area, each irrigator would receive enough water to grow only about 18 ha of cane. Yet, the direct dam construction costs of providing this water would be about \$200 000 per irrigator. In effect, the cost per irrigator will be much higher as (a) the water will not be distributed amongst all existing irrigators and (b) there are many other costs associated with this project. We suggest that the 'real' cost per irrigator will be at least \$0.5 – 1 million (but not including 'environmental externalities', such as loss of biodiversity). The community already heavily subsidises Burnett irrigators with existing infrastructure. The Queensland government provided a rural water subsidy for the Bundaberg irrigation scheme in 2001-02 of more than \$2.8 million¹. That is, taxpayers funded operation costs for this scheme at more than \$2,500 per customer or \$28 per megalitre of water delivered.

In October 2000, the Office of Economic and Statistical Research in the Treasury department strongly criticised economic assessments undertaken for the Burnett Basin water allocation (WAMP) process. They concluded that "on the evidence available, there can be no reasonable expectation of any economic benefit from expansion of water allocation beyond the 73,000 ML a year envisaged in the low volume scenarios". In other words, Treasury advised government that Paradise Dam was not economically viable.

In simple terms, what Treasury argued in 2000 was that:

- (a) in the Burnett region, there are high-value users of water (e.g. fruit and vegetable growers) and low-value users of water (e.g. cane growers);
- (b) it is doubtful that many of the low-value users will be commercially viable if they have to pay the costs of supplying the dam and other infrastructure;
- (c) if water is allocated competitively, then it would go mostly to high-value users;
- (d) the predicted demand by high-value users will be met without Paradise Dam;
- (e) therefore, the evidence "does not demonstrate economic benefits" from a Paradise Dam level of extraction.

That advice was hidden from the public through Freedom of Information loopholes until recently leaked to a newspaper.

There are clear alternatives to Paradise Dam which would meet the objectives of the Queensland government to increase agricultural productivity and create jobs in the Burnett region. In fact, we understand that the Queensland government has a commissioned least cost planning study of the Burnett which demonstrates that the economic benefits of the dam can be realised through alternative means. QCC has long advocated that water efficiency measures, such as reduction of distribution losses and more efficient irrigation systems, should be implemented prior to any consideration of a dam.

¹ The Bundaberg scheme delivers water from storages on the Kolan and Burnett Rivers, including the major storage Fred Haigh Dam.

The role of the Commonwealth

The Commonwealth government has had limited involvement with the Paradise Dam project.

EPBC Act - The project was assessed and approved under the EPBC Act, but on extremely limited grounds – its impacts on threatened species (the Black-breasted button quail) and listed migratory bird species. None of its major impacts – e.g. reduced environmental flows, impacts on lungfish, turtles and fish, increased salinity risks – were assessed.

NCC assessment – The project will be assessed by the NCC once there is a commitment to construction of the dam. Because the NCC has not yet assessed any major new water infrastructure, this dam (or perhaps Meander Dam in Tasmania) will be a test case for how effectively the NCC will implement the CoAG agreements on new rural water infrastructure.

Deficiencies of Commonwealth involvement

Paradise Dam will have significant environmental impacts on the Burnett River system, particularly through reduced environmental flows. In combination with existing and planned weirs, the dam will drastically alter river hydrology and ecology. It is a major deficiency of Commonwealth legislation that the entire suite of environmental impacts of the dam were not assessed.

The Burnett is one of 20 regions targeted as a priority under the National Action Plan for Salinity and Water Quality. By facilitating the expansion of irrigation in an area already manifesting major degradation, including salinity, the project directly undermines the Commonwealth-state funded NAP program. It will also undermine the objectives of the NHT program in terms of its impacts on biodiversity and the environment. It is a misuse of taxpayer funds to implement programs to mitigate the impacts of unsustainable development while allowing for further unsustainable development with Paradise Dam.

Taxpayers' funds will be misused to subsidise wasteful use of water and environmentally damaging irrigation if Paradise Dam is built. The integrity of the NCC assessment process has yet to be tested in the case of new water infrastructure. The NCC has not required comprehensive implementation of the CoAG agreements on water reform. For example, rural water prices in the Burnett are still heavily subsidised by the taxpayer.

The Australian community also subsidises inefficient use of precious water resources (and other environmentally degrading land use practices) through the taxation system. The Commonwealth government should use the taxation system to penalise those who are inefficient and unsustainable and reward those who are efficient and sustainable.

This case study demonstrates the gaping lack of Commonwealth involvement in major water infrastructure projects – projects which have obvious national implications. QCC argues that the Commonwealth needs to take appropriate responsibility for such projects in a number of ways, including:

- assessing major water infrastructure projects under the EPBC Act for their major environmental impacts including impacts on environmental flows and associated land use impacts;
- ensuring that Commonwealth funding for programs such as NAP and NHT are based on tackling root causes of the problems, so that they are not undermined by environmentally permissive state regimes;
- ensuring that the NCC fully implements the CoAG water reform agreements, e.g. by ensuring that there is full cost recovery for rural water use;
- reforming the NCC assessment process if it fails to rule out obviously unsustainable and unviable projects such as Paradise Dam;
- reforming the taxation system to promote environmentally sustainable agricultural practices.

QCC notes with concern that there is generally a very poor level of ecological literacy in the Australian community, including decision-makers. Thus, during the present extended dry period, great public attention has been focused on proposals to 'drought-proof' Australia by turning rivers inland. There has also been a concerted focus in some communities on building more dams as an antidote to drought. In most cases, such proposals are based on basic misconceptions about both the Australian environment and climatic conditions. An ecologically literate community would not be focused on such fantastical schemes. Our focus should be on how better to live within the natural systems of this country – recognising the fragility of the land and its extreme natural variability. Thus, an important role for the Commonwealth should be in promoting a much better understanding of Australia and solutions which are focused on living within the capacity of the land. This would require, for example, a different approach to so-called 'droughts'. Current drought assistance largely fosters a backward mindset of resistance to the land rather than acceptance of extended dry periods as part of natural cycles. In addition, some forms of assistance promote damage to the environment (e.g. providing feed subsidies which promote retention of cattle on properties). The Federal Government spent \$700 million on drought or exceptional circumstances assistance from 1992-99 and state governments also provide huge amounts of drought assistance. This money could be much more effectively spent on assisting farmers to farm sustainably in a way which accepts natural climate variability.

QCC has been encouraged by the attention given to the ideas of the recently formed Wentworth Group, a group of leading environmental scientists, as it indicates recognition of our need to understand our land and its problems in a scientific way. QCC encourages the inquiry to take serious heed of the recommendations of the Wentworth Group.

(d) Commonwealth policies and programs that could address and balance the competing demands on water resources.

In this section, QCC addresses the issue of property rights and water. We discuss in general terms the problems associated with granting greater property rights over land and water.

Farming organisations are currently mounting a sustained attempt to gain statutory rights to automatic compensation when regulations designed to protect the environment affect the way they use their land², or, specific to the topic of this inquiry, when regulations affect farmers' access to and use of water. Their arguments are largely based on some dubious and erroneous assumptions about the nature of rights and the nature of property, explored below.

Firstly, their arguments are based upon an assumption that environmental regulations restrict extant rights; i.e. that in the absence of regulation, the landowner has the right to use land as s/he pleases. However, landholders have never had a *right* to degrade the land and harm the environment. The right granted to land proprietors is usually expressed as the right to "beneficial use and enjoyment" of the land. This is not a freedom or right to use land (or water) in an environmentally harmful way.³ Thus, that landholders have been allowed to clear their land of vegetation is the result of historical lack of awareness of the implications or negligence, not the operation of a right to harm the environment. The evolution of national goals and community values which are given expression when the government legislates to control land clearing or reduce access to water, for example, do not necessarily equate to a withdrawal of rights. Regulation is usually an expression of what is arguably the existing general responsibility of landholders to look after the environment. Such a responsibility necessarily evolves as understanding of the environment and community values and priorities evolve. Thus, new environmental regulations clarify an evolving understanding of what is necessary to look after the environment responsibly rather than withdraw rights to particular land use practices.

The complementarity of rights and responsibilities associated with property has recently been stressed at the United Nations *Workshop on Land Tenure and Cadastral Infrastructures for Sustainable Development*, with one of the conclusions of the international experts being that:

² For example, the National Farmers Federation is arguing for a legislative right to compensation under the *Environment Protection and Biodiversity Conservation Act* if a refusal under that Act to allow work by a farmer "results in a drop in property values". Reported in *The Australian* 13 August 2002, "Farmers push for green law rollback".

³ Raff (2001), p. 3. Raff cites *Backhouse v Judd* in which Napier J of the South Australian Supreme Court considered the source of a common law obligation to care for domestic animals:

... it seems to me that the only satisfactory basis for the duty is that of ownership. There is nothing novel in the idea that property is a responsibility as well as a privilege. The law which confers and protects the right of property in any animal may well throw the burden of responsibility for its care upon the owner as a public duty incidental to the ownership.

property rights in land do not in principle carry with them a right to neglect or destroy the land. The concept of property (including ownership and other proprietary interests) embraces social and environmental responsibility as well as relevant rights to benefit from the property. The registration of property in land is thus simultaneously a record of who is presumed to bear this responsibility and who is presumed to enjoy the benefit of relevant rights. The extent of responsibility is to be assessed by understanding the social and environmental location of the land in the light of available information and is subject to express laws and practices of the appropriate jurisdiction.⁴

Inherent in calls for compensation is the view that what has traditionally been permitted (and fostered in some cases) by government constitutes a compensable right if no longer permitted. This viewpoint fosters a very static view of society and land use practices. Thus, historical negligence, ignorance or the predominance of certain values about the environment have generated expectations about the future which farming organisations want to turn into rights. But frustrated expectations are *not* equivalent to withdrawn compensable rights. Rather, one could argue that many landholders have benefited at the expense of the environment and society through damaging farming practices. We don't argue that these landholders should compensate the environment and society (although it is logically sound); we argue, rather, for the adoption of responsible practices with community sharing of the costs of transition in some cases .

Other assumptions made by those arguing for compensation are about the nature of property. Land and water are not possessions like furniture or a house. They are not, in fact, a possession; a landholder holds an estate or an interest in the land. Other living beings share the land and water and have certain interests and rights, although the legal rights of the environment are very poorly defined. Most people agree that we should not compromise the interests of other forms of life sharing this planet in continued life and wellbeing. The way a landholder manages land and water is a matter of great public interest because of the interconnections with the environment as a whole and the interests of future generations.

⁴ *The Bathurst Declaration on Land Administration for Sustainable Development*, 6, available at <http://www.ddl.org/figtree/pub/figpub/pub21/figpub21.htm>, Bathurst, Australia, 17-23 October 1999 – quoted by Raff (2001), p. 3. Raff goes on to argue that:

[I]f the governmental regulation of land use exceeds what is called for by the factual requirements of the land's actual social and ecological location then it is possible for the excessive regulation to amount to compensatable part-expropriation, but until that point is reached there is no compensation for exercising the responsibilities with respect to the land that a reasonable land owner would recognise. With respect to land clearing, for example, the state of existence of a piece of land denuded of trees clearly is not the natural state for that land. There could be good ecological reasons for native vegetation to be retained on the land. It is a mystery from where an automatic right to clear land is supposed to stem when it would be ecologically unsound to do so. It might be protested that the owner has purchased the land with certain expectations, but these have little bearing on the best ecological course of action. One might equally point out that someone who wants cleared land should acquire cleared land, rather than acquiring forested land and clearing it. People acquire property that does not meet their expectations all the time. Usually it is the responsibility of purchasers to ensure that property being purchased will meet their expectations.

When farming groups argue for compensation, they argue that actions undertaken to protect the environment are beneficial for the public ('public good conservation') and that, therefore, the public should pay for them; for example, that farmers should be paid for not clearing vegetation or when water is reserved for environmental flows. It seems a curious argument that the public must pay individuals to resist destroying or using what exists. Certainly, the public benefits from continued existence of native vegetation and environmental flows, but shouldn't have to pay individuals in order for that benefit to be retained (rather, there is an argument for paying land managers to manage the environment for public benefit – payment for positive actions). We recommend that the relationship between the landholder and environment should be expressed more directly than through the intermediary concept of the 'public good'. Environmentally responsible land use practices are primarily for the good of the same environment that the landholder profits from and the wildlife that share and also depend on that environment. It seems entirely reasonable that the landholder should both benefit from use of the environment and endeavour to protect that environment – for the sake of the environment itself, rather than the abstract 'public good'. The language of 'public good' conservation masks the direct and reciprocal relationship between the landholder and the environment. It seems ludicrous to ask the public to compensate the landholder for taking on a more responsible role in her/his direct and intimate relationship with the land.

It is important that conservation of nature becomes part of everyday farming business rather than a burden and something additional to farming. Compensation would hinder rather than contribute to that needed cultural transition. Farrier (1995) made the following points about the disadvantages of compensation compared with other forms of assistance:⁵

- it allows "landholders to externalise the problem and deny that they have any responsibility for the conservation of biodiversity";
- "[c]ompensation is backward looking and has nothing to say about the future management of the land";
- it allows landholders "to wash their hands" of the issue of biodiversity conservation rather than "being given some degree of ownership" of the issue and "a real stake in addressing it";
- compensation for a restriction does not provide for the ongoing management of the land for conservation; and
- compensation is inequitable as a landholder benefits according to the (often chance) development value of the land rather than for work performed.⁶

⁵ Farrier, D. (1995) "Conserving biodiversity on private land: incentives for management or compensation for lost expectations?", *The Harvard Law Review* 19(2): 303-408, Accessed at www.lib.ttu.edu/playa/rights/r995-04.htm, pp. 397, 400.

⁶ In contrast to compensation, according to Farrier (1995), p. 400, stewardship payments offer substantial conservation benefits:

Unlike compensation, stewardship payments are forward-looking. They are based on the extent of management activity required and carried out, rather than on the reduction in market value of the land. They are more equitable than compensation because they constitute payment for work performed, rather than being based on what are frequently chance factors relating to the development value of land. Basing payments on management for biodiversity production would

There seems to be an assumption that environmental regulation is different from other forms of regulation enacted for the good of society, e.g. health and safety regulations. Compensating farmers for environmental regulations would be analogous to governments compensating tobacco companies when regulations about smoking change or business when new pollution regulations are implemented and factories are no longer allowed to pour effluent into waterways. Compensation for environmental regulations would set a dangerous and unaffordable precedent.

Calls for compensation assume that society can afford it. In fact, a regulatory requirement for compensation would be an effective way to stymie nature conservation and environmental protection because the required expenditure would probably exceed current environmental budgets many times over. Requirements for compensation would be an unreasonable burden on the community, unfair to the environment and detrimental to future generations. QCC encourages financial assistance for farmers required to make substantial changes to land-use practices.

(e) The adequacy of scientific research on the approaches required for adaptation to climate variability and better weather prediction, including the reliability of forecasting systems and capacity to provide specialist forecasts

The most important challenge for Australians is to learn how to live sustainably in this land – to live in a way which does not degrade the environment and destroy native wildlife. Such learning should derive from a scientific understanding of impacts and solutions. Some of the priorities for scientific research should therefore include the following:

- We need to understand in much greater detail the characteristics of our river systems, each of which is distinctive. We need to understand our rivers on their own terms rather than as some degree of variation from what has been regarded as a prototype river. One of the major impediments to sustainability in Australia has been the colonial expectation that the Australian environment should conform to Eurocentric notions of land, water and agriculture.⁷ An important component of this research

encourage landowners to perceive elements of biodiversity, such as endangered species, as assets, rather than the liabilities that they currently represent.

Stewardship payments are also congruent with justifications for private property that emphasize its role not only in respecting the individual's sense of dignity, but also in developing a sense of personal responsibility to the community. n459 Instead of telling landowners that they are being compensated to keep their destructive hands off the land, the message is that they have a vital role to play, a role that the community regards as sufficiently important that it is prepared to pay for it. The symbolism inherent in the language is crucial.

⁷ As Mary White expressed in White, M. (2000) *Running Down: Water in a Changing Land*, East Roseville: Kangaroo Press:

The very idea of what a river is and how it should behave is conditioned for most of us by our heritage: rivers should run swiftly to the sea, be permanent, well behaved, and stay within their banks, and should provide for all our requirements, predictably, throughout the year.

needs to be investigation of whole systems, in order to understand, for example, the links between rivers and wetlands and groundwater and overland flows.

- There needs to be much more research into sustainable agricultural practices – the development of practices and products which are compatible with the Australian environment and climate, and with the existence and wellbeing of native vegetation and wildlife.
- We urgently need investigation into the impacts of likely future climate and environmental scenarios on the natural environment, so that we can start planning now to provide for the future survival and continued evolution of the Australian flora and fauna.
- Decision-making needs to be underpinned by a much greater understanding of human decision-making and drivers, so that cultural change can be purposively achieved. We need research into the most effective means of reforming land use practices and attitudes towards the environment.

Summary of recommendations

- The Commonwealth government takes a lead policy and regulatory role in rural and regional water issues – implemented through the development of a national water policy and the establishment of an independent federal body to implement the policy.
- The national water policy sets out a blueprint for future approaches to water resources, with funding for states linked to achievement of milestones. It would considerably expand the scope of the CoAG Water Resources Policy by providing a much more comprehensive and integrated approach to water, including all aspects of the total water cycle and water systems. The Commonwealth government would take a lead role in requiring and promoting sustainable agricultural industries through taxation reform, community education, research and development of alternative sustainable rural industries and economic systems which properly value the natural environment.
- The Commonwealth government implements a policy framework for protecting remaining pristine unregulated rivers and reinstates a Wild Rivers Unit within Environment Australia to facilitate policy development and implementation.
- The Commonwealth government directly assesses the impacts of any major proposed new water infrastructure through the *Environment Protection and Biodiversity Conservation Act 1999* with environmental flows and river health regarded as a matter of national environmental significance.

- The Commonwealth government determines appropriate sources of revenue for implementation of a national water policy, including consideration of an environmental levy, taxation reform and diversion of funds which currently support unsustainable land use practices.
- The Commonwealth government conducts a sustainability audit of Commonwealth funding for natural resource management to identify sources of funding which could be diverted to promote sustainable water use.
- The Commonwealth government immediately enters into negotiations with the Queensland and NSW governments about the most effective way of stopping land clearing in 2003 and contributes to funding to assist landholders to adjust to changed regimes.
- The Commonwealth government requires and promotes much more efficient use of existing water resources; for example, by making water use efficiency one of the criteria by which states are assessed on water reform and new rural water infrastructure by the National Competition Council.
- The Commonwealth government ensures that the National Competition Council fully implements the CoAG water reform agreements, including that all rural water infrastructure should be ecologically sustainable and economically viable is fully implemented and that there is full cost recovery wherever possible for rural water use.
- The Commonwealth government develops a long-term adequately resourced plan for restoration of degraded river systems.
- The Commonwealth government improves the program to protect the Great Artesian Basin and dependent ecosystems through obligatory bore capping (with substantial funding assistance to landholders); a program to strategically reduce water availability in large areas of the arid and semi-arid zones in order to protect biodiversity at risk from the large-scale watering of these areas; and protection of Great Artesian Basin spring ecosystems.
- The Commonwealth government ensures that programs such as the National Action Plan on Salinity and Water Quality and the Natural Heritage Trust are based on tackling root causes of the problems, so that they are not undermined by environmentally permissive state regimes.
- The Commonwealth government promotes through community education a much more ecologically literate interpretation of the Australian environment and solutions to problems which are focused on living within natural systems.

- The Commonwealth government resists calls for entrenched property rights over land and water resources in order to maintain its capacity to deal effectively with environmental problems and in fairness to other members of the community, future generations and other species in the environment.
- The Commonwealth government facilitates and prioritises research to understand Australian river systems, including the entire water cycle; to develop sustainable agricultural practices; to model and develop responses to likely future climate and environmental scenarios; and to more fully understand human decision-making in order to reform land use practices.