21 December 2010

Committee Secretary
The management of the Murray-Darling Basin
Senate Standing Committee on Rural Affairs and Transport
PO Box 6100
Parliament House
CANBERRA ACT 2600

By email: rat.sen@aph.gov.au

Dear Committee Secretary,

Re: The management of the Murray-Darling Basin

Tandou Limited would like to take the opportunity to provide input to the management of the Murray Darling Basin including the Murray-Darling Basin Authority's Guide to the proposed Murray-Darling Basin Plan as issued to the basin community in October 2010.

Our feedback is in the form of a high level critique of issues with the Guide and the wider Commonwealth water reform process rather than an assessment of impacts on Tandou Limited.

Yours sincerely,

Guy Kingwill

CEO/Managing Director

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Introduction

Tandou Limited (ASX:TAN) is a modern Australian agribusiness and water company that owns and operates large scale irrigated cropping, horticultural and pastoral operations. Established in 1972 Tandou's land holdings cover nearly 85,000 hectares near Menindee NSW, 250 km north of its Mildura corporate office. Over time Tandou has invested in water entitlements and currently owns over 36 gigalitres strategically held across various river systems in the Murray Darling Basin.

In addition to investing in water entitlements and selling allocations Tandou combines traditional farming knowledge with the latest technological advancements throughout its enterprises to minimise risk and produce high value returns. It is a major producer of irrigated cotton and durum wheat on 13,500 hectares, along with stone fruit, wine grapes, citrus and organic lamb. Tandou also provides farm management and development services.

Tandou has since its establishment in 1972, continuously advocated for better use of water resources in the Murray Darling Basin, internally the company has adopted technology and educated its staff to utilise the resources of the company to greatest efficiency. The company has also been active on a broader scale with proposals for improvement to the management of the Menindee Lakes and the Great Anabranch Darling since the 1970s.

Tandou has actively worked with government and industry on these proposals and on the development water markets since the early 1990s. The company believes that this history and its investment of $70 million in irrigated agriculture and water entitlements within the Murray-Darling Basin qualifies it to provide some comment on the MDBA Basin Plan and the management of the Murray-Darling Basin.

Water Act 2007

There has been considerable debate over the appropriateness or otherwise of the Water Act 2007 for the reform process. It appears that the same Australian Government Solicitor has provided conflicting interpretations to the Federal Minister and the MDBA. The Australian public is entitled to legislation that will meet the need for which it is intended, this conflicting information needs immediate resolution, if that means returning the Water Act 2007 to Parliament, then it should be done. The Australian public understands if Parliament does not get things right the first time around.

Tandou does not support the Guide to the proposed Basin Plan in its current form, it does not meet the National Water Initiative (NWI) intergovernmental agreement and fails the test of good public policy. We also believe that the MDBA has demonstrated through its management of the release of the Guide and the associated consultative process that it is not equipped to deliver a sustainable and balanced Basin plan (also the view of former MDBA Chairman, Mike Taylor).

Murray-Darling Basin Plan

The Guide to the proposed Murray-Darling Basin Plan and its release has been an exercise that has caused maximum angst for the Basin community while providing little clarity for stakeholders as to the effects on their environment, businesses and communities. The way in which it was released, at 4 pm on a Friday without any technical data to support the first volume, including segregated lockups for stakeholders and media, along with a 6 page 'summary' of each region, which again raises more questions than it answers is very poor indeed.

The use of the precautionary principle that the Murray Darling Basin requires more water for environmental purposes to justify spending of $12.9 billion public funds is curious at least. If one considers the impacts on business and the community the impact would far greater, and all of this based on the precautionary principle. Further it is noted with interest that on page 38 of the Guide to the proposed Basin Plan that the MDBA states that most of the evidence base used for the plan has not been peer reviewed, surely to fundamentally change the operation of one sixth of Australia's landscape some peer reviewed information is required.

It is also noted that there is little reference to the variability of the river flow, as evidenced in recent floods and the crippling drought from 2000 to 2010. There is a gross misunderstanding of the operation of the rivers within the Australian community, the rivers are not European rivers with constant strong flow, rather they are largely event rivers with some of the greatest variation of any rivers in the world. Referring to dry river beds as 'dead' or 'unhealthy' is plain wrong for the majority of the Basin as this is a normal part of the natural cycle.

Many of the Basin's rivers have been modified greatly for human purposes including water supply to urban, industrial and agricultural use, recreation, flood mitigation and amenity, this needs to be recognised and accepted that the rivers of the Basin have been put to work for humans and perform many functions that are important and simply wanting a 'natural' river will have impacts on all users of the Basin.

Environmental water

The use of terms such as river health, over allocation etc is emotive, subjective and provides stakeholders and the wider community with conflicting impressions and conclusions. There is an urgent need to clearly define the outcomes required from this reform process and target the type of water that is needed, rather that use of emotive language. Further to defining the outcomes of the process the use of a target of end of system flows, the use of this parameter needs support and identification as to the flow regimes both within and between years that is required rather than a simple single measure parameter. The use of such a simplistic parameter is not the answer to a complex system. The guide notes that the Paroo and Lachlan catchments are in better 'health' relative to other catchments, while these catchments rarely experience large end of system flows, if the end of system flow hypothesis is accepted, these systems should, by definition be in 'very poor health'.

As a result of an electronic search of volume 1 of the Guide to the Proposed Basin Plan the word 'barrage' is not found once within the document. There is at least 1 whole page devoted to the Murray Mouth and a focus on the end of system flows throughout the document, the lack of discussion on the barrages, their operation and effect on the health of the Coorong and Lower Lakes is a glaring omission at least.

The plan ignores the water that has already been set aside for environmental use in the Basin under processes such as the Water Sharing Plan development process in NSW (greater than 200 GL) and The Living Murray (500 GL). Table 1 below is taken from The Living Murray website and shows some of the 'other' environmental water entitlements as at June 2008 that is not part of The Living Murray programme, it can be seen that there has been a significant volume of water entitlement that has been put to environmental use over a large number of years. Much of this water has been returned from irrigators' entitlements, recognition of this fact in the reform process and by the wider community is very limited.

Table 1. Other Environmental water as cited on 14 December 2010 at http://thelivingmurray2.mdbc.gov.au/programs/water_recovery/progress.html

Allocation name	Year approved	Volume (GL/yr)	Responsibility and when water becomes active
Barmah-Millewa Forest EWA	1993	100	shared by NSW and Victoria is paid into the account every year (provision to carryover up to 700 GL)
	2001	50	additional water is shared by NSW and Victoria when Victoria sales water reaches 30%
Lower Darling River ECA	2002	30	MDBC control = Menindee Lakes must be > 480 GL, and have been > 640 GL since the last time it was < 480 GL
NSW Murray Wetlands EWA	2000	30	
Moira Lakes Savings	2000	2.027	for use in NSW Murray wetlands
Murrumbidgee ECA	1998	25	additional volume of 25 GL/yr when allocations are <80%, increasing up to 200 GL for allocations 80% - 100%
Murray Additional Environmental Allowance	2000	5.4	whenever the high security allocation is equal or less than 97%
Victorian Murray Wetlands EWA	1987	27.6	including 2,600 ML/yr allocated to Hird and Johnsons Swamps
TOTAL		**270.027**	

It is Tandou's understanding that none of this water is included in the Basin Plan as part of the water committed to the environment already, why is this the case and if it is not to be considered under the Basin Plan, what use will it be put to? Some of this water has been managed by groups such are the Murray Wetlands Working Group, this group has managed water entitlements and allocations, the use and triage of water for environmental purposes over a number of years, from a local level. Has the MDBA consulted with this group or used any of their local expertise and allocation account management experience?

What requirement has there been to improve the management of environmental water similar to that which has occurred within all sectors of the irrigation industry since the 1980s? All industries that use water in the Murray-Darling Basin have benchmarks as to the volume of water required to produce their respective products, these benchmarks are being continuously improved industry wide and on a business scale. What benchmarks exist for environmental water and how are they to be improved over time?

The demand for environmental water is going to be different for different sites, however as with irrigation of agricultural crops the demand for water is in response to the last time water was received, and there can be issues with a whole farm requiring water at the same time, as the sequencing of irrigation has been reset due to a rain event. Therefore if a drought was seen similar to the 2000-2010 event would it be possible to have any significant impact on the 'health' of the ecosystem of the Basin, as effectively the whole of the Basin was in need of water.

The floods at the time of writing are providing respite, however flows such as these can only be supplied from such flood events and not from regulated water entitlements. In short it is impossible to 'restore' the Basin to ' health' using regulated water entitlements that are currently being purchased and suggested to 'save' the Basin from 'over allocation'.

It is also noted that the has been little attention paid to the use of innovative water products that provide water for example the environment taking an option on water entitlements when water supply reaches a particular level that correspond to watering of an environmental asset under a without development scenario. Both ABARE and Murrumbidgee Irrigation have done work on some of these innovative water products and Tandou would be an active participant in such products and markets.

Water Markets

Tandou has long been a supporter of improving the function and rules of water markets for both water entitlements and allocations. Areas that are hydrologically connected on a regular basis must have market rules developed allowing trade to occur as often as possible, these market rules should be communicated to and accessible by all participants. Tandou has had experience in both entitlement and allocation water markets and there areas that still require attention including conduct of brokers and participants, rule changes and the effect on markets of those changes.

The operation of the Commonwealth Environmental Water Holder (CEWH) in the market requires careful consideration as any actions by a large entity with different economic and market pressures can impact significantly on markets. Clarification of the way this entity will operate is essential to ensure the integrity of the markets and protect itself and other market participants are necessary.

While there are issues with a single government entity dominating the water market, there are opportunities to improve the operation of the markets through the activity in the market of the Government, this relates to information and development of a more sophisticated market. Currently the $3.1 billion Restoring the Balance programme does not supply valid information to the market, instead a price is quoted for a particular product only, this action is contrary to the statements from the Commonwealth that market information is very important to ensure proper functioning of that market. Disclosure of price and volume by the RTB programme would greatly improve the functioning of the market.

Lower Darling

Lower Darling water entitlements have one of the most secure water allocation histories within the Murray-Darling Basin this is due in part to the small volume of entitlement on issue and the large storage available to supply this allocation. During the recent drought Lower Darling general security water entitlements have had greater allocations earlier than many 'high' reliability entitlements, this is due to the excellent resource that is the Menindee Lakes.

The Basin Plan requires a reduction of between 16 to 21 GL/y the valley only has a pool of Urban water 10 GL, high security 7.6 GL and general security 30.3 GL (note these entitlements listed are not Long Term Cap Equivalent values), if it can be assumed that urban water is not affected by the Basin Plan, then the reduction will occur to the high and general security water, reducing from 38 GL to a range between 17 and 22 GL of irrigation water use. This reduction will significantly change the economic, social and environmental fabric of the valley. There have been 3 significant water entitlement recovery measures in the Lower Darling all under The Living Murray,

- 500 ML (0.48 GL LTCE) Lower Darling high security entitlement
- 47,800 ML (38.6 GL LTCE) Lower Darling general security entitlement from piping of Darling Anabranch
- 250,000 ML (~35 GL LTCE) Lower Darling supplementary entitlement from Tandou Limited

The total volume of water entitlement recovered in the Lower Darling is over 70 GL, this is from a valley that has a small volume of water used in irrigation compared to the size of the water resource. The Basin Plan calls for a further 16 to 21 GL from the Lower Darling meaning that there will be over 90 GL of dedicated environmental water entitlement to 20 GL or less of entitlement for irrigation. This dedicated environmental water is in addition to the significant volume that is used in the environment of the Lower Darling through water being stored in the Menindee Lakes and conveyed to the Murray downstream as well as the 30 GL of Lower Darling Environmental Contingency Allowance (ECA) (see Table 1.).

Chapter 12 of the Draft Guide to the proposed Basin Plan shows and states that the region includes Wentworth and Euston, this is not correct. Euston is at least 100 km as the crow flies from the Lower Darling, *i.e.* the area around Euston and Wentworth should not be included in the Lower Darling, rather included in the NSW Murray as this has been the NSW planning area for many years.

Menindee Lakes

The Menindee Lakes are one of the 3 most important water storages in the Murray-Darling Basin, their position in the landscape of the Basin is highly significant below the Barmah Choke and the only storage site on the bottom of the Darling Catchment. During a time when we are told that there will be greater climate variability, water storage should be optimised and the Menindee Lakes are a site where this can occur. Water from Menindee is critical to supply water to South Australia, they also underpin water allocations for both the NSW and Victorian Murray and to allow for regulation of water from the Darling Catchment which is predicted to suffer less from climate change than the Murray catchment.

During the water reform process that commenced with the Commonwealth involvement the Menindee Lakes has been suggested as being inefficient through to decommissioning to 'save' evaporation. While Tandou has advocated for improvements that can allow better use of the water of the Menindee Lakes for over thirty years, improvements at Menindee will not be a cure all for any perceived or real problems of the Murray-Darling Basin as a whole.

The Menindee Lakes essentially require completion of the original design from the 1950s and 1960s along with securing the water supply for Broken Hill. The deepest lake that holds the greatest volume is Lake Cawndilla, with the current design this lake cannot be drained, leaving a residual pool (or 'dead storage') of approximately 200 GL, this water is not available for use in the Darling River below Menindee and approximately half is available for use at Tandou Farm or the Darling Anabranch. The Menindee Lakes are akin to a bath tub that has the drain plug half way up the side, the dead storage needs to become accessible through any changes.

Broken Hill has a population of 20,000 people and is a major service centre for a radius of over 200 km requires a secure reliable water supply. Tandou has and continues to believe that a better water supply can be made available to Broken Hill. Currently when Broken Hill has less than 18-21 months of water supply from the Menindee Lakes all water in the Lakes is reserved for the use of Broken Hill and upstream users are prohibited from accessing water for irrigation. This can be a volume of up to 300 GL to supply Broken Hill with 20 GL, *i.e.*280 GL will evaporate and water users both upstream and downstream are prohibited from using water. Surely a better use of the water can be found, while considering the water requirements for such a large urban centre are absolutely vital.

While it is noted that there are investigations into managed aquifer recharge currently occurring, Tandou believes that there are other options. The first is a simple 'ring tank' or earthen reservoir, as it is economically feasible for irrigation businesses to finance the capital and ongoing cost of a water storage to depths of up to 9 metres, it is possible to use this type of infrastructure, cost effectively for urban water supply. This is the case as it is afforded by much lower value water users, including irrigators, this is of course in the absence of other options such as managed aquifer recharge.

Tandou has made proposals to Government concerning the use of such an option on its Tandou Orchard property located adjacent to the Broken Hill pumping station, it should be noted that this property is currently for sale and a new owner may have a different view on use of this property for Broken Hill water supply.

Many reports including the recent Darling River Water Savings Project Part B tabled by SKM in March 2010 discuss the use of cells and segments within individual lakes in the Menindee system to achieve

water savings, this ignores that fact that the Menindee Lakes are already in segments. That is the individual Lakes (Wetherell, Pamamaroo, Menindee and Cawndilla) of the Menindee system can be operated separately, however this is not the case currently, as the ability to drawn water for downstream needs requires flows greater than can be supplied from a single Lake and often requires all of the Lakes to be drawn upon simultaneously. The effect of this is to reduce water in storage while maintaining the water surface area, this in turn maximises evaporation loss.

This is a practise that does not occur in the operation of water storages on irrigation farms, in fact there has been public and private funding to assist irrigators to split water storages into segments that can be managed independently. The effect of this is to maximise water in storage while minimising water surface area, this in turn minimises evaporation loss. If private enterprise can manage this operational efficiency, why can it not be done at one of the most important water storages in the Murray-Darling Basin?

The shortest path for water to be released from dead storage in Lake Cawndilla is via Kinchega National Park, however Tandou understands that there are significant cultural heritage issues with this option. The next option would to create a channel through an enlargement of the existing Cawndilla outlet and then through an enlarged Pinnelco Channel across Tandou Farm, management of Tandou are willing to discuss this option with Government, if it is required.

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